

TheNationalLocksmith.com

January 2001
Volume 72
No. 1
\$5.00

CODES!
BMW, BH010009-BH241009
page 131

The National Locksmith®

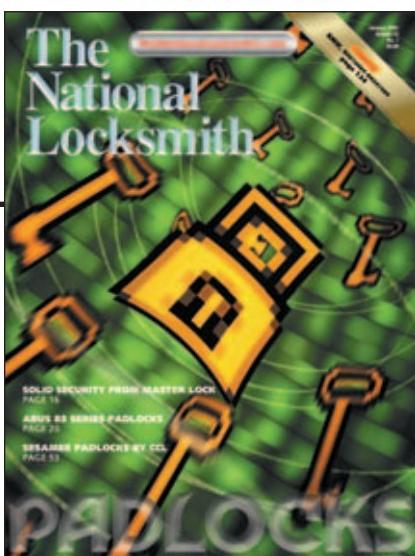
SOLID SECURITY FROM MASTER LOCK
PAGE 16

ABUS 83 SERIES PADLOCKS
PAGE 20

SESAMEE PADLOCKS BY CCL
PAGE 53

PADLOCKS

On The Cover...



Between Master Lock's vast product offerings, ABUS's Quick keying capabilities and CCL's Sesamee keyless combination locks, there is one that is sure to fill your padlock needs.

Publisher Marc Goldberg

Editor Greg Mango

Art Director Jim Darow

Technical Editor Jake Jakubowski

Senior Writers

Sal Dulcamaro CML, Michael Hyde, Dale Libby
Chris Dave McOmie, Sara Probasco

Contributing Writers John Blankenship,
Tony Blass, Joe & Dee Bucha, Carl Cloud,
Ron & Chris Curry, Richard Allen Dickey,
Steve Gebbia, CML, Giles Kalvelage,
Jim Langston, Tom Lynch, Tom Mazzone,
Don Shiles, Robert Sieveking

Director of Sales & Marketing
Jeffrey Adair

Advertising Account Manager
Debbie Schertzing

Accounting Manager Sheila Campo

Production Assistants Kim van Mourik
Dave Krofel
George Grumbos

Administrative Assistants Sean Selby
Jeffrey Thompson
Allan Galvez

National Publishing Co.

The National Locksmith® ISSN #0364-3719 is published monthly by the National Publishing Co., 1533 Burgundy Parkway, Streamwood, Illinois 60107-1861. Periodicals postage paid at Bartlett, Illinois 60107 and additional mailing offices USPS 040110. Subscriptions \$41.00 per year in the USA; \$54.00 per year in Canada; \$67.00 in all other countries. Single copies \$5.00 each. Postmaster, please send change of address to National Publishing Co., 1533 Burgundy Parkway, Streamwood, Illinois 60107-1861. ©2001 by the National Publishing Company. All rights reserved. Printed in the U.S.A.



Questions or problems with your subscription? (Or other inquiries?)
Call (630) 837-2044

Fax: (630) 837-1210

E-Mail: natlock@aol.com

See us on the World-Wide Web:
www.TheNationalLocksmith.com

CONTENTS

The National Locksmith January 2001 • Vol. 72, No. 01

FEATURES

- | | | |
|--|--|--|
| <p>COVER FEATURE! 16
 Solid Security From Master Lock</p> <p>COVER FEATURE! 20
 ABUS 83 Series Quick Servicing Padlocks</p> <p>28
 The 1999 Jeep Cherokee, Part 2</p> <p>37
 Quick Entry Update</p> <p>40
 Locksmiths & Distributors</p> <p>51
 Modern Safe Locks Tech Bukletin</p> <p>COVER FEATURE! 53
 Sesamee Padlocks</p> <p>54
 HPC Key Decoder HKD75</p> <p>58
 The ROFU 2400 Series Electric Strike</p> | <p style="font-size: 10px;">16</p> <p style="font-size: 10px;">20</p> <p style="font-size: 10px;">28</p> <p style="font-size: 10px;">37</p> <p style="font-size: 10px;">40</p> <p style="font-size: 10px;">51</p> <p style="font-size: 10px;">53</p> <p style="font-size: 10px;">54</p> <p style="font-size: 10px;">58</p> | <p>64
 Finding Bumil, Knight, and Brink Combinations</p> <p>68
 Blind Key Marking</p> <p>78
 2000 ISUZU Vehicross</p> <p>84
 Motorcycle Updates</p> <p>110
 Empty Buildings Mean Profits</p> <p>112
 Sargent & Greenleaf Then & Now</p> <p>120
 Dispatch Procedures & Lockout Protocol</p> <p>CODES 131
 BMW, Part 4</p> <p>151
 TheNationalLocksmith.com</p> |
|--|--|--|

DEPARTMENTS

- | | | |
|---|---|---|
| <p>5 COMMENTARY</p> <p>6 MANGO'S MESSAGE</p> <p>10 LETTERS</p> <p>12 SECURITY CAFÉ</p> <p>44 BEGINNER'S CORNER</p> <p>48 THE LIGHTER SIDE</p> | <p style="font-size: 10px;">5</p> <p style="font-size: 10px;">6</p> <p style="font-size: 10px;">10</p> <p style="font-size: 10px;">12</p> <p style="font-size: 10px;">44</p> <p style="font-size: 10px;">48</p> | <p>76 ROAD RALLY</p> <p>81 CASH STATION</p> <p>90 TECHNITIPS</p> <p>128 BUSINESS BRIEFS</p> <p>130 THRU THE KEYHOLE</p> <p>152 TEST DRIVE</p> |
|---|---|---|

COMMENTARY



www.TheNationalLocksmith.com

By now let's hope that we know who our next President is. The election turned out to be a cliff hanger, with constant changes and updates occurring every day. During the period of uncertainty, what we most craved was *information*.

America's (and the world's) need for information was met by a constant flow of updates from all forms of news media and the internet. Although a lot was happening and changing on a moment's notice, I never felt out of the loop because I could always get the latest report with a button click.

That reminded me that the flow of information is also the life's blood of the locksmith industry. In the beginning, there was no magazine or association to share information among locksmiths. Then in 1929, The National Locksmith was formed. Later, local associations followed, as did a national association of locksmiths.

All that served to help connect locksmiths together for the better of all. Today, our website at TheNationalLocksmith.com is receiving an average of over 7,000 user sessions a week by more than 2,200 unique users.

Last week, for example, visitors to TheNationalLocksmith.com spent a grand total of 467 man (or woman) hours using the technical forums, and other features. That's 467 hours in ONE WEEK!

During that time though, these 2,200 locksmiths asked and answered numerous complex technical questions for each other. They viewed videos on how to open cars, the posted their own photographs of locks and parts. They talked in real time chat in the chat room.

What we have now online, is a 24 hour community of locksmiths brought together by

Communicating in the New Millennium!

our mutual interests and profession. If you're ever sitting around wondering if you're the only locksmith who has ever run into a client who wants you to work on a 1929 LaFrance fire engine...guess what?

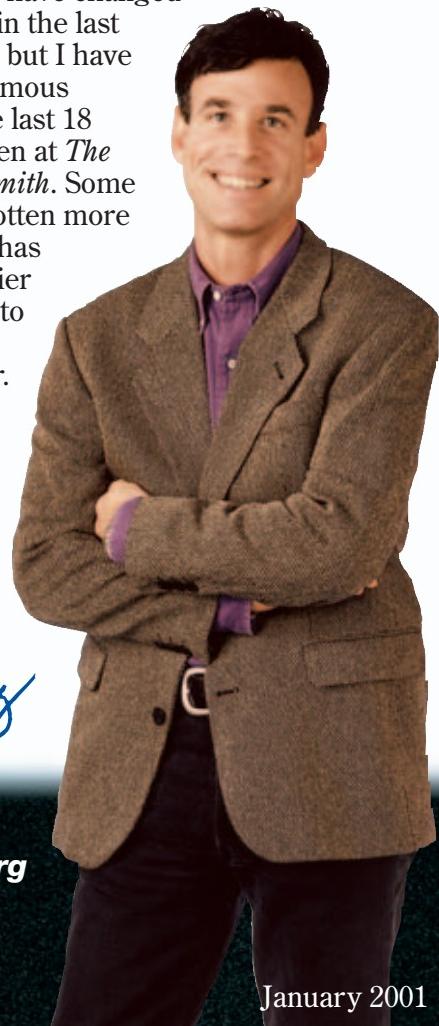
Someone else out there has been in your shoes, and he or she probably can tell you how to complete the job. All you have to do is find them, and you can do that easily and for free on the web site.

As we begin a new year, and technically, the first of our new millennium, I want to welcome you to our community. I also want to thank you for making the last 18 years of my life as Publisher interesting and rewarding.

Many things have changed for locksmiths in the last hundred years, but I have even seen enormous evolution in the last 18 since I have been at *The National Locksmith*. Some aspects have gotten more difficult. But it has never been easier than right now to communicate with each other.

We wish you a happy and prosperous New Year!

Marc Goldberg



Have questions? Want free technical help?

Free Locksmith Forums!

www.TheNationalLocksmith.com

Marc Goldberg
Publisher

Mango's Message

To commemorate this past presidential election race and the Florida "Chad" controversy that overshadowed it, I obtained a south Florida voting ballot to see what all the confusion was about. I don't know how many of you have had the opportunity to see one, but I failed to see why there was such an uproar as to it being so confusing that some voters may have inadvertently selected the wrong candidate. In fact, on the contrary, I found it very user friendly and well designed. I was so impressed that with a slight modification, I am going to incorporate this same design as our company phone extension listing.

Periodically we receive a call or letter from a subscriber stating that they tried to contact us, but was unable to easily navigate through the voice mail on our phone system to connect with the appropriate party. To simplify the process for those needing to contact the Publisher (Marc), Editor (Greg), Art Director (Jim), Director of Sales & Marketing (Jeff), Advertising Account Manager (Debbie) Accounting Manager (Sheila) Production Assistants (Kim), (Dave), (George), Administrative Assistants (Sean), (Jeffrey), or Shipping Manager (Allan), just follow the line next to the desired person in the chart to the appropriate extension number:

There, that should eliminate any future confusion and make your extension navigation quick, easy and hassle free.

If you have been following the adventures of "Greg's Hole" many of you have asked if the hole is finally complete? Well, I'm happy to report that after months of abuse, verbal threats, humiliation, salary sanctions, sniper fire and cramped living conditions, yes, "Greg's Hole" is now little more than a memory... even though none of you rat @!#%&* offered to help! Just remember, don't come knocking on my door when you need a hand æ and you know that day will come, it always does.

Official National Locksmith Extension Directory	
Marc	—
Greg	14
Jim	12
Jeff	22
Debbie	15
Sheila	16
Kim	18
Dave	21
George	23
Sean	24
Jeffrey	20
Allan	10
	17

History in the Making

Contrary to my publisher's December, 2000 Commentary, wrought with slanderous, contrived, photo retouched National Enquirer journalism (a practice no respected, honorable journalist would ever engage in), I'll have you know that the hole drilling process went as expected... splendidly. O.K., it wasn't absolutely perfect, so I missed my mark by a smidgen... maybe a smidgen and a half, but I was darn close.

The arsenal of tools used to complete this task was a rotary drill and 1" carbide drill bit 15" long that was rented from a local tool rental company. A 1/2" hammer drill with one 3/8" and one 1/2" carbide drill bit 16" long, goggles and gloves. StrongArm came to the rescue with the long 3/8" and 1/2" carbide drill bits. I was in a bit of a quandary as to where to get these bits in such lengths. StrongArm had them in stock and sent them out next day, arriving early the next morning.

To proceed with the drilling, first I marked a spot in the outside crater 8" below ground level where I wanted my hole to be. Then I chucked up the 3/8" carbide bit in the hammer drill and proceeded to drill a pilot hole. As you will notice, I needed to angle my hole to

**Continued on
page 8.**

Greg Mango

**Greg Mango
Editor**



Mango's Message

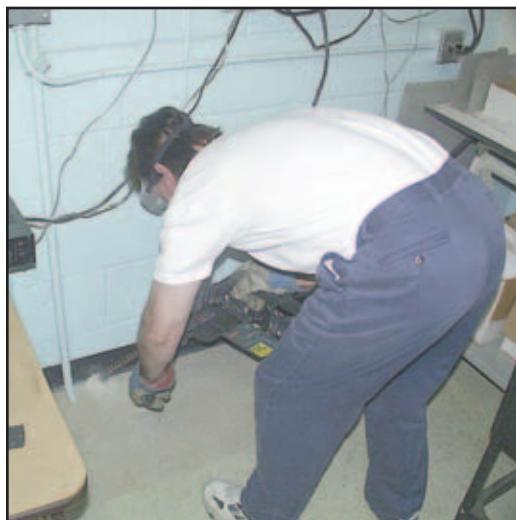
Continued from page 6

the left just a chad tad. This was due to the fact that there was a wire conduit positioned exactly where I wanted my hole to be, eliminating my ability to drill straight down.

The first drill went perfectly. As you can see, my drill bit broke the surface and is protruding right in the middle of the "X." How sweet it is. I followed the 3/8" bit up with the 1/2" and then prepared the big gun. Like a jackhammer, the rotary drill and 1" bit pummeled its way through the foundation. With a little touchup from the outside to clean and smooth the surface area, the task was finished. Soon thereafter the phone company came out, ran a new phone line and then sealed the historical landmark that will forever be remembered as "Greg's Hole."

Out of respect, I would normally not show you the outtakes that ended up on the cutting room floor, but since my boss has maliciously and unmercifully exposed my dirty laundry, the simple fact of the matter is, this is the real reason why Marc was at my mercy to complete this job:

And now you know the rest (truth) of the story. **TNL**



J a n u a r y 2 0 0 1

Letters

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length.

Going Beyond the Call of Duty

Kris Smith, owner of Pop-A-Lock of New Iberia, Louisiana received the following letter from one of its clients after he provided service in a duress situation.

"I would like to take this time and let you know how much I appreciate all you did. On 9-23-99 my child was locked in our van. We called and you came. Then to top it all off there was no charge. It's nice to know that there are still people out there who care and are not out to simply make a buck! Thanks again and please know that your work is greatly appreciated and you will be advertised to all I know."

Sincerely,
Wendy Breaux

BWD's Selection

Many locksmiths around the country give freely of their time and expertise in times of crisis and in most cases, never receive recognition. So, as a way of saying "Thanks" to Kris Smith, owner of Pop-A-Lock of New Iberia, BWD has sent a selection

of its Premium Pack locks. In light of all the locksmith efforts that go unrecognized, BWD wishes to extend this same offer of appreciation to locksmiths from around the US and Canada. Simply send in your (or a friend's) story of "Going Beyond The Call Of Duty." On a monthly basis, BWD will award a set of Premium Pack locks (approximately \$100.00 in value) to one qualifying locksmith. So, hurry and send your story and if possible a photograph of the helping hand hero to:

*Going Beyond the Call of Duty
c/o The National Locksmith
1533 Burgundy Parkway
Streamwood, IL 60107
Fax: (630) 837-2044
E-mail: natlock@aol.com*

Pythagorus' not Pythagoreans

Your 'hole' calculating story was amusing, but some of your historical facts were wrong. Pythagorean did not create the theorem that you used. The Greek philosopher Pythagorus in the mid 6th century, began to develop the idea of the relationship between music and mathematics. Pythagorus' followers were known as Pythagoreans. Several centuries later, the Pythagorean Theorem that you used appeared. The period was actually late part in the 18th century, and no one person is credited with its creation, just the Pythagorean adherents. Thought that you might like to know.

Rich Unice
New Jersey

In Memory of Sheldon Wiener

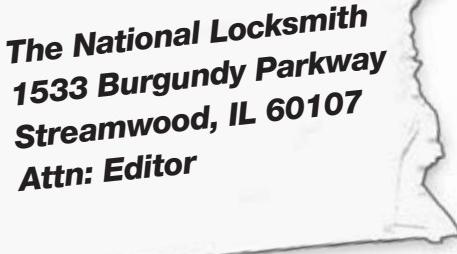
A true friend of every Detroit area locksmith passed away November 23, Thanksgiving morning. Sheldon



Wiener of Key Sales and Supply has ended his battle with cancer. Sheldon recently moved to Las Vegas, Nevada and his final resting place will be in Las Vegas as well. Condolences may be sent to his wife: Rene Wiener, 602 Crimson View Place, Las Vegas, NV 89144-1387, Phone: (702) 233-4183 or his son: Mike Wiener, Key Sales and Supply, 9950 Freeland, Detroit, MI 48227, Phone: (313) 931-7720.

In Memory of Leonard Goldstein

Leonard Goldstein, Director of Purchasing for Mayflower Sales Co., died on August 1, 2000. He was 39. Mr. Goldstein worked at Mayflower Sales since 1981. He began his career as a stock and shipping clerk, eventually working his way up to become a valued part of the Mayflower management team. Mr. Goldstein's father, Harris, was associated with Mayflower Sales for 28-years and is widely known throughout the Security Industry. Mr. Goldstein is survived by his wife Lisa and his parents. **TNL**



Security Café

**DROP IN FOR
TOOLS, TECHNOLOGY
& EQUIPMENT**

Prox In A Box 4 Door Access Control Kit



CIRCLE NUMBER
301

Prox in a Box is the first access control system designed specifically for alarm dealers. Right out of the package, Prox in a Box is easy to install, program and operate. No PC is required to install or operate the system. In fact, Prox in a Box is designed to be easier to install than a standard alarm system. Since Prox in a Box is keypad programmable, first time installers and seasoned professionals alike will appreciate the simple and familiar menu driven LCD keypad interface for both the programmer and user. One simple order should provide almost everything for a two-door access control system. The Prox in a Box convenient start up kit includes: a 4-door controller, LCD keypad, 2 Prox readers, 25 prox cards, transformer, enclosure and more. Prox in a Box has all of the features associated with large complex systems all at a fraction of the cost and Prox in a Box can expand to up to 16 doors by connecting up to 4 controllers.

Von Duprin Maintenance Kit

CIRCLE NUMBER
302

When you need parts for Von Duprin's 98/99 Series devices, they're at your fingertips with the 98/99MK Maintenance Kit. The kit provides more than 50 popular parts and has extra space for items such as

electrical components, end caps or crossbar parts. The 98/99MK Maintenance Kit is a convenient way to stock and carry common maintenance items, including fasteners, springs and retaining rings, and its compact size (15"x15"x9") is also a plus. The kit has three labeled drawers with individual compartments and a top storage compartment for larger assemblies and tools. As an added bonus, Von Duprin includes a 45-page manual that explains the kit's contents and locations of specific parts, as well as application information and maintenance instructions for the parts in the kit. The manual also provides information about basic maintenance, such as lubrication. Most parts in the kit are unfinished. The finished parts will match a white metal (i.e. dull chrome or stainless steel).

The PRO-LOK 2000 Car Opening Manual



CIRCLE NUMBER
303

Have you ever had difficulty unlocking a car? Ever worried about side impact air bags? Well, worry no more. The PRO-LOK Car Opening Manual will show you with full color photos on each page exactly how to unlock each car. What better way to learn car opening than with full color photos with the door panels off to eliminate the guesswork? PRO-LOK manuals will show you the proper tool to use, where to place the tool, how far to insert the tool, what type of linkage you are going to find and exactly what to do to unlock the car. Step by step

STI NEMA 4X Stopper Dome

Safety Technology International, Inc. has announced an addition to its line of super-tough covers to protect the smaller strobe notification appliances of the new generation of fire protection systems. The Stopper Dome is a weatherproof polycarbonate cover rated NEMA 4X for indoor and outdoor use and UL/cUL approved. To maintain UL approval outdoors, the notification appliance must also be approved for outdoor conditions (-40 F to +120 F). The cover protects against windblown dust, rain, splashing water, hose directed water, damage from external ice formations and corrosion. It features a 2" deep circular backbox molded from clear, thick polycarbonate material (greater than .200" thick). Backbox was also tested to UL requirements (UL50) for conduit bending and pull out requirements. Both the cover and the spacer are UV-stabilized against discoloration and backed with a lifetime guarantee against breakage in normal use. The device also incorporates an appliance mounting plate that eliminates the need for an electrical outlet box.



CIRCLE NUMBER
305

instructions make is so easy. Volume 4 contains over 300 pages and over 800 full color photos of detailed car opening procedures of vehicles from 1998 to 2000. It comes in a 3 ring binder with tabs and is updated yearly.

Tigerline Equipment Safety Tow



Tigerline Equipment announces another addition to its family, the Safety Tow. A one-person operation system, the Safety Tow

utilizes a winch for loading and unloading even on a slight incline. With no batteries, no hydraulics, and few moving parts, the Safety Tow is compact and should yield a high return on investment. DOT approved, the Safety Tow can be used with your existing service vehicle. Equipped with electric brakes, and two tow chains, the Safety Tow can be used knowing that safety is a priority.

Trimec RoTec 260

Trimec announced a revolutionary new electric strike designed specifically for rim panic exit devices. RoTec 260's

CIRCLE NUMBER
306



Continued from page 12

unique roller keeper emulates the functionality of a rim panic strike plate resulting in a smoother egress and longer life for both the electric strike and the exit device. With an unrivaled body depth of just 7/16", this low profile unit is ideal for narrow style jambs, eliminating the need for high-priced electrified panic devices. Two strikes installed back-to-back provide a simple, cost-effective solution for double door applications using a 1" mullion. RolTec is U.L. listed for Burglary (1034), U.L. Static Force tested to exceeds 1000Lbs., and U.L. Dynamic Force tested to exceed 70ft. Lbs. It is field reversible fail-safe or fail-secure, non-handed, and constructed of heavy-duty, tamper resistant stainless steel. Trimec also provides a variety of options and accessories including dual latch monitoring. RolTec 260 comes with a full 5-year warranty on both mechanical and electrical components.

Radio Key Long Range Proximity Reader

The all new Radio Key RK-WL long range proximity reader from Secura Key is now available. With a read range of up to three feet this new reader will be a popular choice for parking control and gated communities. This Wiegand output reader may be connected to access control and telephone entry systems by most manufacturers. The RK-WL



provides excellent protection against weather and may be mounted on virtually any flat surface or electrical box. Patent-pending Dynascan technology assures maximum reader performance in any environment.

Master Lock Resettable Combination Padlocks



**CIRCLE NUMBER
308**

Master Lock Company introduces two new resettable combination padlocks to complement its popular

No. 175 resettable combination padlock; a solid brass lock with shrouded shackle (No. 177), for maximum security against bolt cutters and shackle cut attacks. An economical die-cast lock (No. 178), which features an attractive corrosion-resistant powder coated base. Both offer the same direct dial, 10,000 possible combinations, and resettable features as the established No. 175. These new padlocks, combined with Master Lock's existing solid brass No. 175 lock, offer end-users a complete line of resettable combination padlocks. All resettable combination padlocks offer set-your-own-combinations for maximum convenience. Four-digit dialing allows for thousands of possible combinations.

**CIRCLE NUMBER
309**

McCoy Productions MCR Kit

The MCR Kit is designed to save time and money for automotive locksmiths by magnetically holding the clip to the door while it is maneuvered off and on the lock with the assorted tools and instructions. MCR will work on domestic and

foreign autos when the lock is held in place by a clip. MCR is great for making door keys to cars without glove compartment locks or trunk releases and for rekeys, foreign car codes or if you just rather not remove door panels.

SDC Electromagnetic Design Breakthrough



SDC EmLocks have incorporated a patented design breakthrough that significantly boosts performance. The electromagnetic core is cradled and welded in a heavy gauge "U" channel that repeatedly withstands stress to the breaking point without losing holding force. Benefits of this design include elimination of unsightly and unstable epoxy which gives way under stress, elimination of holding force loss due to stress-induced micro separations and elimination of toxic fumes in a fire. In addition, the epoxy-less design provides an architecturally finished appearance and 1650 lbs. of holding force. The snap fit mounting plate provides stability by withstanding more stress than traditional mounting plates.

Palmer Security Products 5000PB Firearms Drawer Safe

The Palmer Drawer Safe offers the following benefits; a simplex quick access lock for speedy entry - no batteries required, the combination can be reset anytime, custom four-bolt locking system for



exceptional security, bolts to any horizontal surface; mounting holes provided, pry resistant 12 & 14 gauge steel construction, a lined interior to protect valuables, carrying handle, optional mounting frames allow quick lockdown and removal, and two handgun capacity. Palmer Security Products division got its start eleven years ago, when a national news story about a young boy accidentally shooting his sister provided the inspiration for their first gun safe.

Abus Steel-O-Flex #1000

The Abus Steel-O-Flex #1000 is an innovative light weight (6.35 lbs.) option to maximum security for motorcycles. Its ingenious design combines strength and resistance to Freon attack, and is easy coiling down to a 14 inch diameter. The Abus Steel-O-Flex #1000 features a 7/8" in diameter, freely rotating, hardened steel alloy link which protects a 3/8" twisted aircraft quality high strength steel cable. The hardened steel links are specially sized so bolt cutter jaws cannot grasp and sever the link. The Steel-O-Flex #1000 includes the famous Abus Plus 7-Disk anti-pick, anti-Freon cylinder with 250,000 guaranteed key options. This flexible and easy to use cable/lock offers excellent resistance to brutal and intelligent attack from saws, bolt cutter, drills, Freon spray, cylinder picking, and pry bars. The perfect choice for locking motorcycles, ATVs, snowmobiles, jet skis, the Steel-O-Flex is vinyl covered for protection of chrome and paint. Ideal maximum security especially for harsh temperature or salt spray environments. The Steel-O-Flex #1000 is 68 inches long.



**CIRCLE NUMBER
312**

**COVER
STORY!**

SOLID SECURITY

from
Master Lock®

by Billy B. Edwards Jr.

Master Lock has made an addition to its ProSeries™ padlock line. Now, in addition to its world famous laminated padlocks and the popular solid brass and aluminum body padlocks introduced last year, they have added a selection of solid chrome steel body padlocks. The new solid steel line includes shrouded and non-shrouded versions comparable in size to the existing brass and aluminum body locks.

The table shows how the solid body padlocks relate to the laminated body. (*See illustration A.*)

ProSeries™

The chrome steel solid body padlocks also use a new type of extension and eventually all the solid body padlocks will be using this new extension. (*See photograph 1.*) The

photograph shows the existing extensions as well as the new ones. From left to right they are for the 6230 (*see photograph 2*), all 1-1/2" width bodies, all other bodies, new for 1-1/2" bodies and new for all other bodies. This new extension eliminates the need for the crescent cutout in the IC capable padlocks.

As with the aluminum and brass bodied padlocks, the solid steel body locks are offered in a few standard body widths. The 7030 has a 1-9/16" width, the 7040 a 1-3/4" width and the 7050 measures up at 2". The shrouded versions of the same locks are available only with the 1-9/16" (#7035) and 1-3/4" (#7045) wide bodies and the standard shackle height for each size. You can see the different shackle heights available for the non-shrouded models in the chart.

PRO Series™

	Laminated				Solid Body											
	Weather Tough		Shrouded		Aluminum		Brass		Steel		Steel Shrouded		Round Steel			
	Part No.	Shackle Ht	Part No.	Shackle Ht	Part No.	Shackle Ht	Part No.	Shackle Ht	Part No.	Shackle Ht	Part No.	Shackle Ht	Part No.	Shackle Ht	Part No.	Shackle Ht
Master Lock Rekeyable	6121	1-1/8"	6321		6835	1-1/16"	6830	1-1/16"	7030	1-1/16"	7035	1-1/16"	6230	1-1/8"		
	6121LJ	2-3/8"	6325		6835LF	1-9/16"	6830LF	1-9/16"	7030LF	1-9/16"	7045	1-3/16"	6230LH	2"		
	6125	1-3/8"	6327	3/4"	6835LT	3"	6830LT	3"	7030LT	3"			6270	N/A		
	6125LJ	2-3/8"					6840	1-3/16"	7040	1-3/16"						
	6127	1-3/8"					6840LJ	2-7/16"	7040LJ	2-7/16"						
	6127LH	1-7/8"					6850	1-1/2"	7050	1-1/2"						
IC Cylinder	6127LJ	2-3/8"					6850LJ	2-1/2"	7050LJ	2-1/2"						
	6421	1-1/8"	6521		6836	1-1/16"	6831	1-1/16"	7031	1-1/16"	7036	1-1/16"				
	6421LJ	2-3/8"	6527	3/4"	6836LF	1-9/16"	6831LF	1-9/16"	7031LF	1-9/16"	7046	1-3/16"				
	6427	1-3/8"			6836LT	3"	6831LT	3"	7031LT	3"			N/A			
	6427LH	1-7/8"					6841	1-3/16"	7041	1-3/16"						
							6841LJ	2-7/16"	7041LJ	2-7/16"						
Door Hdwe	6621	1-1/8"	6721		6842	1-3/16"	7042	1-3/16"	7047	1-3/16"						
	6621LJ	2-3/8"	6727	3/4"	6842LJ	2-7/16"	7042LJ	2-7/16"					N/A			
	6627	1-3/8"			6852	1-1/2"	7052	1-1/2"								
	6627LH	1-7/8"			6852LJ	2-1/2"	7052LJ	2-1/2"								

A. The table shows how the solid body padlocks relate to the laminated body.

Continued from page 16



1. The existing extensions as well as the new ones.



3. The door hardware padlocks use a special driver.



2. The 6230 lock.



4. The Brass solid body padlocks.
5. Six standard colors of Red, Orange, Yellow, Green, Blue and Black are available.



6. A logo via laser etching on the aluminum body padlocks



7. The 6270 solid steel lock.



Both the shrouded and non-shrouded are available in another version for door hardware cylinders and also in an IC compatible version. To order the IC lock, just add a one (1) to the master rekeyable part number and for the door hardware cylinder padlock just add two (2) to the rekeyable part number. Because of size limitations the door hardware lock isn't available in the 1-9/16" body width.

The rekeyables are available with seven different master lock keyways to allow keying into any existing KA or MK'd sets of locks. With the introduction of the new solid steel locks you can also order a new keyway (700A) which will allow matching the keying to the majority of steel bodied locks you will encounter today.

The door hardware padlocks use a special driver on the end of the standard door hardware key-in-knob type cylinder. (*See photograph 3.*) In the photograph from left to right is the drivers for, Lori®/Master®, Medeco® and Schlage® Primus or ASSA® high security cylinders. Master offers the option of ordering in any of the 26 keyway cylinders available. Master also offers a keying service with these cylinders and the door hardware can be keyed at the Master factory to your codes.

The IC padlocks can be ordered with or without a core. Cores are available with the popular SFIC keyways A through M, plus Q and the Arrow 1C and 1D keyways or may be ordered with the Master Lock Y keyway. If you supply the A2 codes for the operating keys and Control key Master Lock can even key them for you. If you need a new key system they can supply that as well.

The Brass solid body padlocks (*see photograph 4*) offer all the same features as the steel solid body locks with the exception of a shrouded version. The Aluminum solid body padlocks are only

available with the 1-9/16" body width. They may be ordered with IC or rekeyable cylinders and colors are available. Six standard colors of Red, Orange, Yellow, Green, Blue and Black. (*See photograph 5.*) The color options offer a wide range of application uses for your customers in addition to use as a lockout system lock. The color is applied as a powdered coating process and has good resistance to corrosion.

A feature that seems to be gaining in popularity is putting an end user logo on the padlock. Master Lock is presently accomplishing this application of a logo via laser etching. On the aluminum body padlocks this produces an especially nice result. (*See photograph 6.*)

Along with the new solid steel body padlocks there is a new shackless (hidden shackle) padlock. The number 6270 is also solid steel and may be ordered with a Master Lock keyway, or a competitor keyway. (*See photograph 7.*) Master has the ability to key this lock to existing codes from competitor products or it can be ordered KA or KD.

These new solid steel locks round out the solid body portion of the Master ProSeries™ line. The ProSeries™ now includes; Solid Steel, Solid Brass, Solid Aluminum, Shrouded and Weather Tough® versions to accept Master rekeyables, IC cylinders or door hardware cylinders.

For more information on Master Lock products contact:

*Master Lock
 2600 N. 32nd Street
 P.O. Box 10367
 Milwaukee, WI 53210 Phone: (414) 444-2800
 Fax: (414) 449-3114
 Web: www.Masterlock.com
 Circle number 281 on Rapid Reply.*

TNL

COVER
STORY!

ABUS 83 Series Quick Servicing Padlocks



by Sal
Dulcamaro,
CML

The expanding line of the ABUS 83 series padlocks started out with the brass body #83/45 padlock. The 83 line of ABUS padlocks uses lock cylinders with full size residential or commercial keyways. The original claim to fame of the ABUS

#83/45 padlock was a small part called the "Z-Bar." When used, the Z-Bar is positioned at the back of the lock cylinder. With the Z-Bar attached, the padlock is key-retaining, and when removed the padlock was non key-retaining.

ABUS is a German lock company that distributes its products in the United States and elsewhere around the world. Unlike the U.S., most other countries in the world use the metric system of measurement as their standard. The number following the slash mark identifies the metric measurement of the padlock body. The metric measure of 45 millimeters is the near equivalent of 1-3/4 inches.

At the time of introduction, the #83/45 padlock replaced two other ABUS padlocks that were either



1. The ABUS #83/45 padlock with the shackle opened.



2. The cylinder has been removed.



3. A back view of two separate cylinders.

strictly key-retaining or non key-retaining. The obvious advantage of the new #83/45 convertible padlock is that you only had to stock one version and could convert them at will. From the customers' stand point, they could buy non key-retaining padlocks and later change their minds without having to buy a whole new lock. The customer always had the option to shift back and forth. Because of the residential and commercial keyways used, another distinct advantage was that they could match the padlock to an existing key.

A newly designed version of the lock cylinder has been introduced that makes the already quick servicing padlocks even quicker.

Lock Cylinder Removal

In the 83 series padlocks, the lock cylinder is retained by a short Phillips head screw that is accessible through the shackle hole opening. *Photograph*



4. Two versions of the lock cylinder used in the 83 series padlocks.



5. Cylinder with the plug partially rotated.



6. Both cylinder versions with plugs rotated 180 degrees.

1, shows a #83/45 padlock with the shackle opened. If the lock is in key-retaining mode, you cannot remove the key (unless it is 0-bitted and the blank key comes out with the plug still turned) without first relocking the shackle. Because the shackle must be opened to gain access to the screw, you will have to leave the key in the lock while removing the retaining screw. If the Z-Bar is not in place (and therefore not in key-retaining mode), the key can be removed while the shackle remains open.

The cylinder has been removed in photograph 2. The Z-Bar is loose just below the cylinder, and the retainer

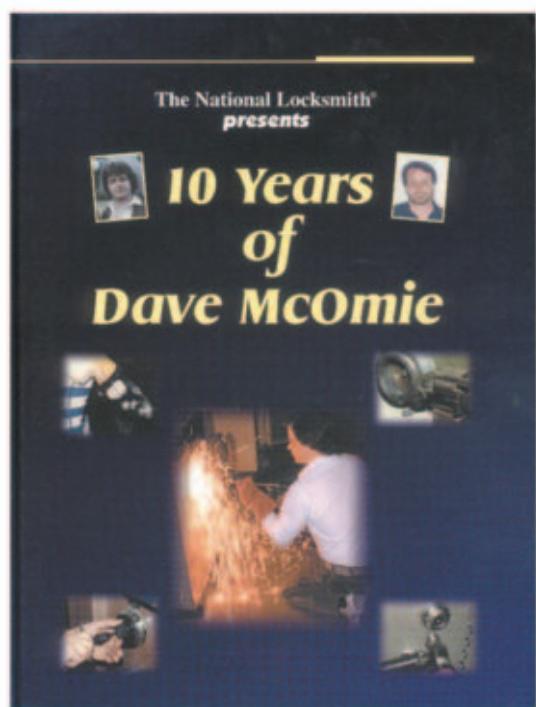
screw is still attached to the tip of the screwdriver. Photograph 3, shows a back view of two separate cylinders, one without the Z-Bar in place and the other with it. A bottom view of the padlock shows the open cavity where a cylinder previously was. There is a certain amount of play between the actuating raised surfaces at the back of the cylinder plug and the driving mechanism inside the padlock opening. When the padlock is assembled and the Z-Bar is out, the plug must rotate a bit before the mechanism engages to release the shackle. That additional play allows the key to be turned back and



7. The older style cylinder with pins removed.

removed without requiring that the shackle be shut first. When attached, the Z-Bar fills the space and removes the additional play. That forces you to

Continued on page 24



10 Years of Dave McOmie

Every single National Locksmith article by Dave McOmie from August 1986 through August 1996 under one cover!

CLICK HERE TO LEARN MORE

Continued from page 21



8. The unloaded newer style cylinder.



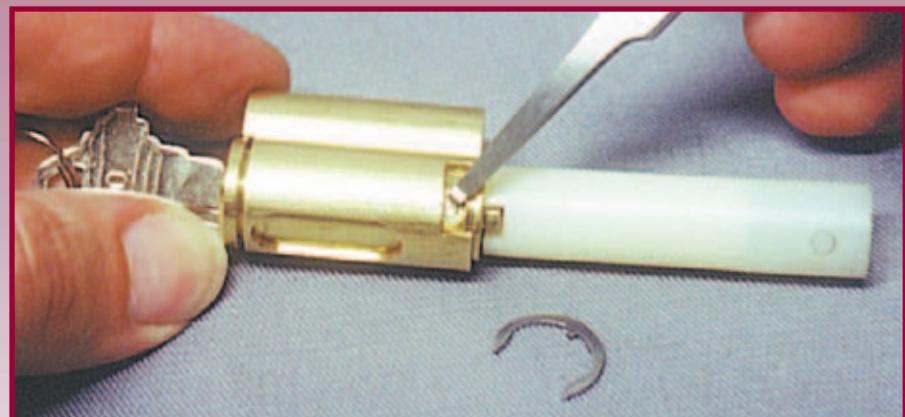
9. Four of five bottom pins have been reloaded.

re-close the shackle before the key can be turned back for removal. Once the retaining screw is removed, the lock cylinder will easily come out of the lock body.

Rekeying the Cylinder

Photograph 4, shows two versions of the lock cylinder used in the 83 series padlocks. The one at the left is the new design, while the original type is on the right. While both versions can be rekeyed by removing the retainer clip and following the plug with a plug follower. Both are capable of unloading and reloading bottom pins without plug removal. The original style cylinder has six individual chamber access holes at the bottom of the cylinder shell, while the newer one has a somewhat large, almost oval shaped single opening that encompasses five chamber positions. A stop pin limits the plug rotation to just under a quarter turn, while the chamber access holes require a full half-turn to line up the chamber holes in the plug. Because the stop pin design was changed on the newer cylinder, there is a slightly different servicing procedure for each type.

The original design had a removable stop pin, while the newer pin is permanent and spring loaded. Looking at *photograph 4*, you can see the stop pin being removed with a set of tweezers, for the cylinder at the right. *Photograph 5*, shows the other



10. The tip of the tweezers pushing in the stop pin to release the plug.

cylinder with the plug partially rotated. The spring loaded stop pin was previously pushed in, which allowed the plug to rotate further. Half of the stop pin can be seen while the other half is being held compressed by the interior surface of the cylinder shell. Continued rotation is now possible until the plug pin chambers line up with the opening on the bottom of the shell.

Photograph 6, shows both cylinder versions with plugs rotated 180 degrees. The bottom pins are now in view and removable. If you look closely at the newer cylinder, you will see the pin chamber positions numbered 1 through 5. The older style cylinder with pins removed is shown in *photograph 7*, while the unloaded newer style cylinder is in *photograph 8*.

With both versions of the cylinder it is easy to dump the pins, insert a new key, reload pins and rotate the plug back to complete the process. The new style cylinder has a slight advantage when it comes to the ease of insertion and removal of the bottom pins, and the visual verification of the pins. Four of five bottom pins have been reloaded in *photograph 9*. The final pin is about to be loaded in the first pin chamber with a pair of pin tweezers.

If you look closely at the chambers numbered 4 and 5, you may notice that one is a bit low while the other sticks out a bit too high. Actually, the two pin positions were accidentally switched. The original style cylinder does not give the same extended view of the top surface of the plug around the pin chamber opening. It would not give the same visual perspective of low or high pins as the new style cylinder.

The fast rekeying process just shown, presumes standard rekeying. Master keying or switching from five pin to six pin chamber operation (or vice versa) often requires access to the upper pin chambers (found in the lock cylinder shell). You would need to remove the plug in order to gain access to the upper pin chambers.

When rekeying in that manner, you would first have to remove the retainer clip found at the back of the plug. For the original style cylinder, you would need to remove the stop pin before the plug could come out. The new style cylinder also has the stop pin interfering with the removal of the plug. Since that pin doesn't come out, it will have to be pushed in to release the plug. *Photograph 10*, shows the tip of the tweezers pushing in the stop pin to release the plug, as the plug is being moved outward. It is a good idea to slightly rotate the plug before removal to prevent any spring loaded top pins from dropping into any possibly empty lower pin chambers, which could trap the plug.

I was told that the new style cylinders would come drilled for six pin chambers, but only coded to five. Earlier, the cutout on the bottom of the cylinder exposed the five marked pin chamber positions. It was designed to allow very quick rekeying from one five pin combination to another five pin combination. Depending on the agility of the person servicing the lock, the old bottom pins can conceivably be dumped out and replaced in under a minute. Now you still have to account for the time of removing the cylinder from the padlock and actually cutting the new keys, but the process is still quite fast.

Photograph 11, shows a new type cylinder apart with the (permanent)

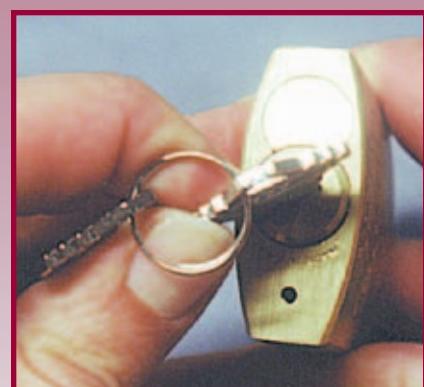


11. A new type cylinder apart with the (permanent) spring loaded stop pin still attached.

spring loaded stop pin still attached toward the back end of the plug. If you look closely, you'll see that there is no sixth chamber in the plug. It appears that this is an early production unit, and I expect that the units that ship will have a sixth (unloaded/empty) chamber. Removal of the plug, such as this, would be required to access the sixth chamber.

Replacing the Shackle

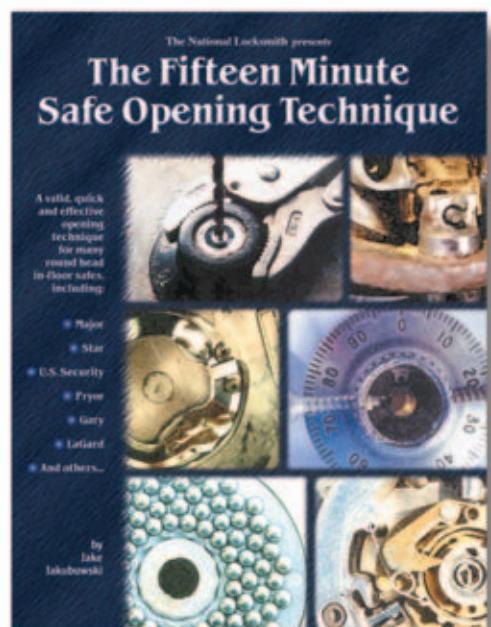
Replacing a shackle on a #83/45 padlock is also an easy task. Shackles are available in more than one length and type of metal. The easy replacement of shackles allows you to stock padlocks in the standard length and carry a few different shackle types separately. When you have customers that need something other than the



12. The normal limit of the plug rotation when unlocking an 83 series padlock.



13. The plug rotated a full quarter turn with the stop pin removed.



15 Minute Safe Opening

This book deals exclusively with round head lift out doors. Shows five ways to open a Major; three ways to find the Dog Pin on a Major; four ways to open a Star; four ways to open a LaGard style round head.

CLICK HERE TO LEARN MORE





14. The lack of a shackle there will allow the locking ball to come out.

standard shackle, you can quickly switch shackles while they wait. It can be done in just a few minutes.

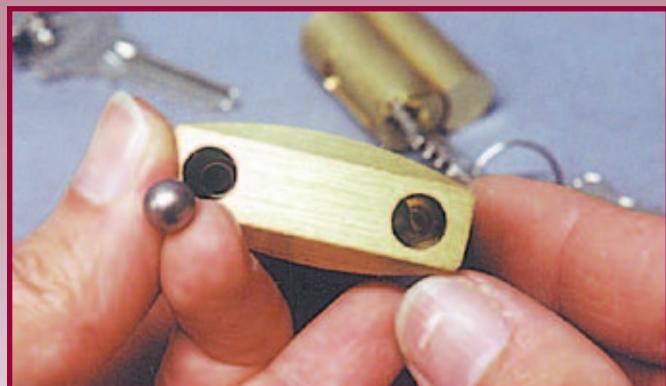
Photograph 12, shows the normal limit of the plug rotation when unlocking an 83 series padlock. The stop pin limits rotation to just under a quarter turn. If the stop pin is removed on the older type cylinders, that rotation limit is removed, and the plug can turn a bit further. *Photograph 13*, shows the plug rotated a full quarter turn with the stop pin removed. When turned this far, the locking ball on the heel end of the shackle will move far enough to release the shackle from padlock body. The shackle has been removed in *photograph 14*. If you tilt the body of the padlock in the direction of the shackle's heel end, the lack of a shackle there will allow the locking ball to come out. The steel locking ball has come out in *photograph 15*. If you hold the padlock body so that the side toward the shackle's heel is slightly upward; gravity will keep the locking ball in place.

Since stop pins come out on the original design cylinders, you could pull out the padlock's cylinder, remove the stop pin and then reinstall the cylinder to allow for the quarter rotation required to release the shackle. With permanent stop pins, the shackle replacement procedure is a bit different. One way is to just remove the cylinder and then take a flat blade screwdriver as in *photograph 16*, and manually actuate the mechanism to rotate it 90 degrees. If you remove the shackle with the padlock body oriented as in the photo, the locking ball will fall out. Not that it is difficult to replace the locking ball,

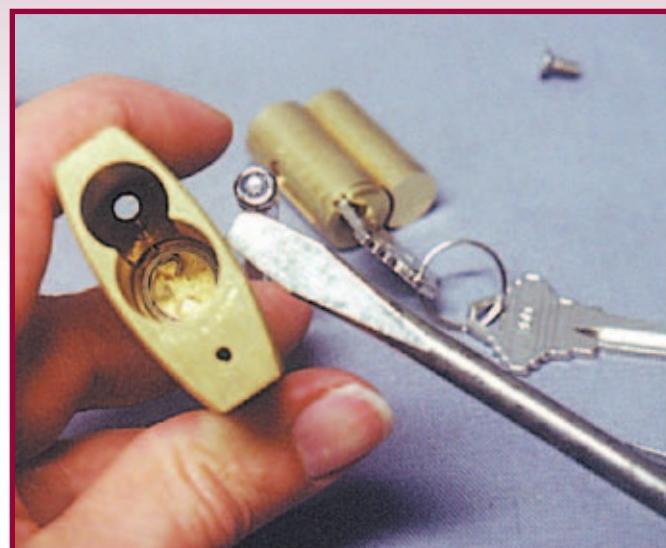
but it would save a bit of time by tilting the body the other way so that gravity keeps the locking ball in place when the shackle comes out.

With a new type cylinder, you can remove the cylinder and then rotate the plug until the stop pin won't let it go any further. Next push in the stop pin and rotate the plug until the plug has been turned 180 degrees (from the key insertion position). You will have to hold the cylinder upside down so the pins don't fall through the opening where you would normally dump out the pins. This will actually help since it will force you to hold the padlock body in the correct position to prevent the locking ball from falling out (once the shackle is removed). Replace the cylinder back into the lock and rotate the plug a quarter turn. The compressed stop pin will allow full rotation.

The 83 series includes two slightly larger bodied padlocks (with thicker shackles). The #83/50 has a 50 millimeter body (about 2 inches wide) and the 55 millimeter body of the #83/55 is just under 2 1/4 inches. While they all use the same size and type lock cylinders, they each have their own type of shackles. While the #83/50 padlock has different shackle lengths available, the #83/55 padlock



15. The steel locking ball removed.



16. One way is to just remove the cylinder and then take a flat blade screwdriver.

currently doesn't.

ABUS is planning a special promotion and contest for the #83/45 series padlocks, to see who can rekey one the fastest. Changing shackles will also be timed to find the fastest time. The repinning contests will be held at various distributor shows, local and other association meetings, the ALOA show, and generally in the field with locksmiths. Various prizes will be awarded for fastest times of repinning, shackle changing and key-retain to non key-retaining changing. ABUS believes that the 83 series padlocks are among the most cost efficient, easiest and fastest repinning padlocks available in the rekeyable padlock market.

For more information, contact: ABUS Lock Company, 3555 Holl Lane North, Plymouth, MN 55447-1269. Phone: 800/352-2287. You can find them on the web at: www.abus.com. Circle 313 on Rapid Reply. TNL

The 1999 Jeep Grand Cherokee



by
Michael Hyde

**Part
2**

Last month we covered the ignition lock. This month we conclude with the door lock and trunk lock.

DOOR LOCK

1

The newly redesigned Cherokee has new looking outside door handles. The door lock is part of the outside door handle. The door handle is made of plastic

2

The passenger side door handle does not have a lock cylinder in the handle.



3 A look at the door panel. The door panel must be removed to service the lock cylinder.



4

Remove the 3 Torx screws on the edge of the door.

5

There is a Phillips screw located inside the door pull cavity that must be removed.

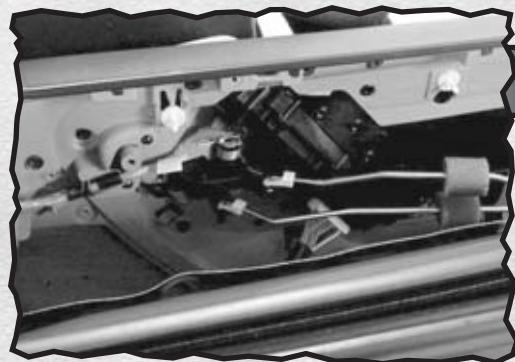


6 The inside door release lever has a Torx trim panel screw behind it. Pull on the handle and you will see it. The trim behind the lever does not come apart. The trim is screwed in place from the other side.



7

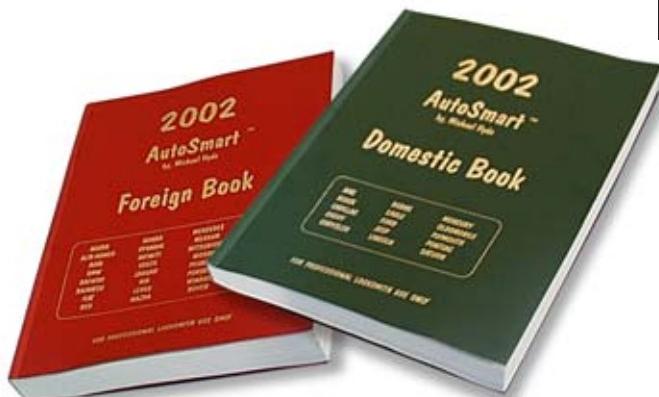
The last trim panel screw to remove is the one up near the door mirror. There is a plastic cap hiding it.



8

You can now unsnap the panel. It uses the standard push-in style plastic

fasteners. The door panel does not need to be lifted up, because it pulls OUTWARD and not upward. Once you have the panel pulled far enough away from the door you will be able to see the two linkage rods. Disconnect the linkage rods from the door.



2002 AutoSmart™

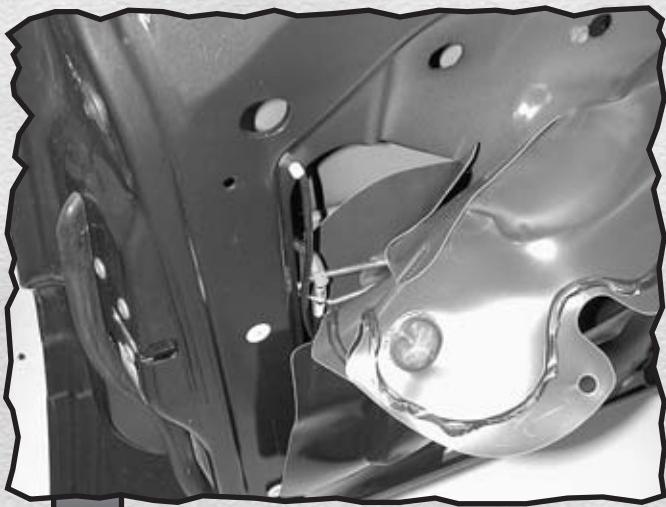
Major changes, additions and revisions to the AutoSmart Book™ have been made, and the 2002 AutoSmart™ is now available!



[CLICK HERE TO LEARN MORE](#)



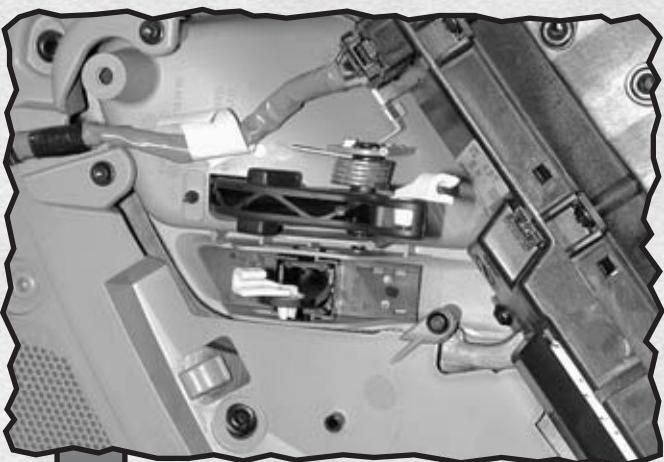
9 A view of the linkage rods and how they travel out of the rubber weather-barrier.



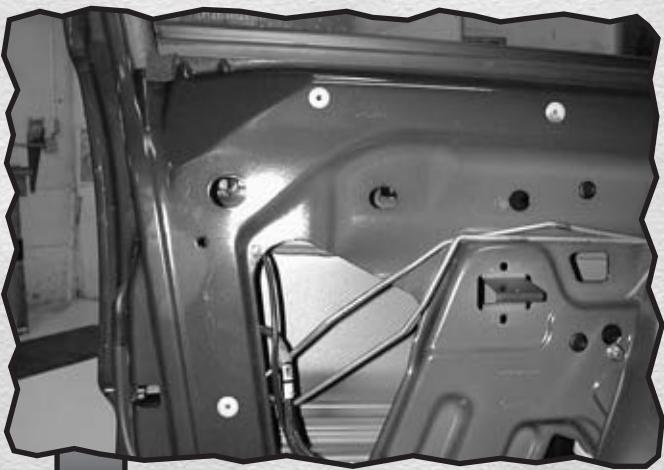
11 The linkage rods enter the rubber weather-barrier very close to the latch mechanism. We pulled back the rubber to show the rods.



13 The handle can be moved around a little. The reinforcement bracket on the outside door handle takes up a lot of room and must be manipulated around with the rear window track to get the handle out.



10 A view of the backside of the inside lever release trim. As mentioned earlier the trim is screwed together from this side.



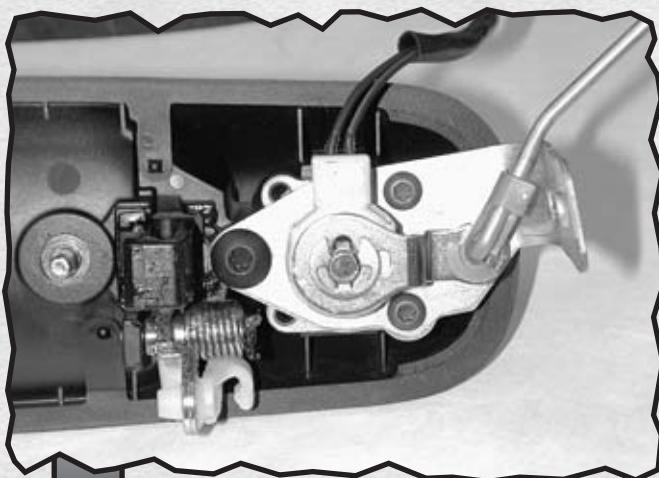
12 Disconnect the linkage rods going to the outside door handle. Remove the two nuts off the outside door handle through the access holes in the door metal.



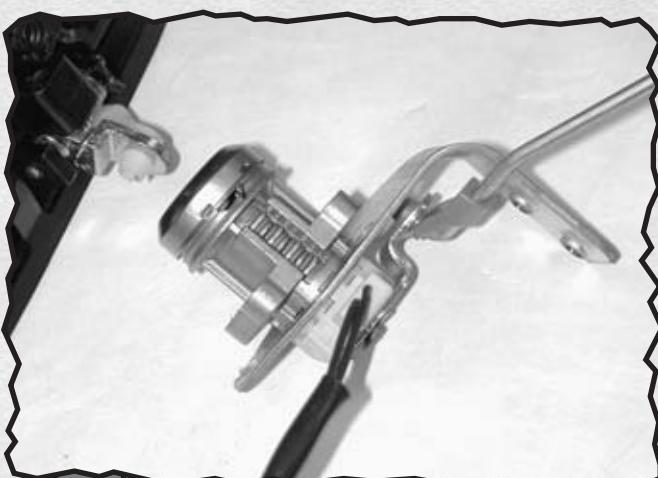
14
Remove other end of the linkage rod as it connects to the handle. There is an electronic switch hooked up to the lock cylinder. You can remove the switch by removing the tailpiece off the lock cylinder or by disconnecting the switch at the connection in the door.

Continued on page 32

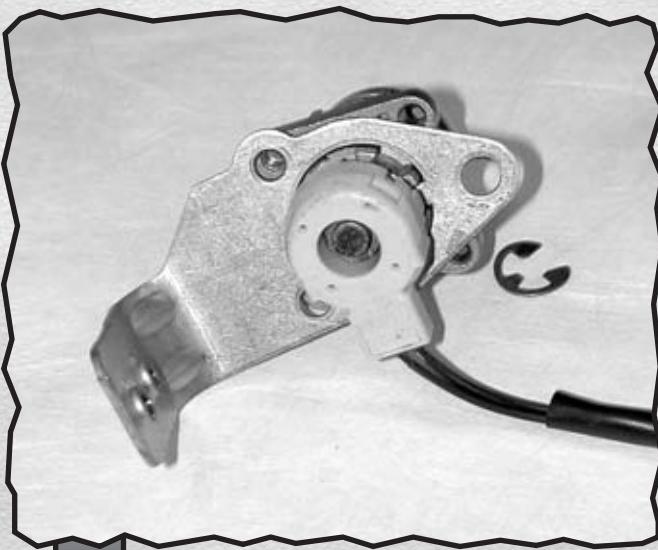
Continued from page 30



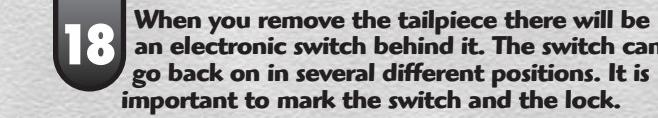
15 The lock cylinder is secured into the handle assembly by 3 Torx screws.



16 All the tumblers can be seen by turning the lock cylinder upside down.



17 The tailpiece to the lock is held on by the standard "C" clip.



18 When you remove the tailpiece there will be an electronic switch behind it. The switch can go back on in several different positions. It is important to mark the switch and the lock.



19 The face cap to this lock is re-useable and the dust shutter assembly is of the modular design. The dust shutter assembly also has two springs that keep pressure on it.



20 The door lock cylinder plug contains seven tumblers in positions 2 through 8.



21 Watch out for the detent pin in the lock cylinder housing.

TRUNK LOCK



22

There is no rear hatch lock. The rear hatch is unlocked by the remote control or the power lock controls.



23

There is a release button located to the right of the license plate for the rear hatch glass.

MAKING FIRST KEY

1998 Dodge/Chrysler/Plymouth/Jeep domestic models will all switch over to a new code-series. The code series is M001-2618. The keyway will be the same except for an additional cut added to the existing key, nearest the bow. The key will now have 8 cuts on it instead of 7. A new ignition lock will be added. The doors, trunk, and compartment locks are not scheduled to change.

Method #1: Check owner's manual for code, written in by the dealer.

Method #2: Use a tool called an 'EZ-Z-Reader' to determine the cuts in the door for positions 2 through 8. Next, progression the number 1 cut (bow cut) in the ignition. You will then have all the cuts necessary for a complete key.

Method #3: You must remove a door cylinder and decode it. Once you have those seven cuts, then you can progression the 1 remaining cut in the ignition. The missing cut needed for the ignition is the first one from the bow. **TNL**

The National Locksmith
Guide to:
Antique Padlocks

by Jack Roberts, CML

Antique Padlocks

Finally there is a book to give you all the information you need about old interesting locks.

CLICK HERE TO LEARN MORE

Quick Entry UPDATE

by
**Steve
Young**



2000 HYUNDAI SONATA

It seems like each model year the various vehicle manufacturers try to outdo each other in one area or another. Several years ago, they were trying to see who could fit the most cup-holders into a single vehicle. Next, it was extra doors - pick-up trucks suddenly started appearing with three and even four doors. Then, mini-vans started getting sliding doors on both sides of the vehicle. For the 2000 model year, it appears to me that they have all decided to see who could put the most layers of weather-stripping on a single vehicle.

While multi-layer weather-stripping gives the interior of the door better protection from the elements, it poses problems when you try to insert a car opening tool into the door. The 2000 Hyundai Sonata is equipped with a type of multi-layer weather-stripping that can be particularly annoying to deal with. (*See photograph 1.*) The lower layer of the weather-stripping is positioned considerably lower than on most vehicles. This makes it very easy to accidentally roll the lower layer while inserting your wedge.

If you are not careful, one or more of the lower layers of the weather-stripping can roll under your wedge, which will make inserting the tool more difficult and reduce your ability to see inside of the door. (*See photograph 2.*) Even worse, it is possible to tear the weather-stripping if too much pressure is applied to the wedge.

The simple solution to this problem is to insert a stiff plastic card between the glass and the weather-stripping before you insert your wedge. Slide the tip of the wedge between the



3. Carefully wedge open the base of the window near the back of the rear door. Use a plastic card or plastic putty knife to avoid damaging the multi-layer weather-stripping.





4. Insert the TT-1001 tool into the door and lower it to the depth of the outside door handle.



5. Bind the linkage by twisting the handle of the tool, then lever the linkage rod forward to unlock the door.

plastic card and the glass as you insert it, pulling the plastic card out once the wedge is below the lowest layer of the weather-stripping. (*See photograph 3.*)

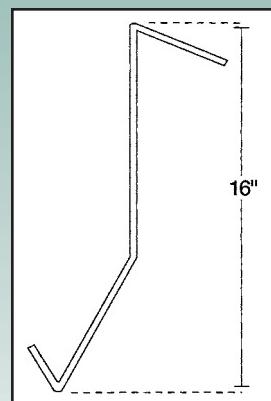
The plastic used to make the card should be relatively stiff but still flexible. The "sheet-lifter" found at the front of many binders is excellent for this job. Another solution is to use a plastic putty knife. I would avoid using metal putty knives because of the possibility of scratching the window or accidentally cutting the weather-stripping.

To unlock the 2000 Hyundai Sonata, begin by wedging open the weather-stripping near the back of the window on the rear door as shown in photograph 3. Next, insert the Tech-Train 1001 "J" hook tool (*see illustration A*) into the door and lower it to the depth of the outside door handle. (*See photograph 4.*) Once the tip of the tool is even with the base of the outside door handle, rotate the tool so that the hook is pointed toward the inside of the vehicle and pull up until the tool hooks the linkage. Twist the handle of the tool in order to bind the linkage and then lever it forward to unlock the door. (*See photograph 5.*)

The inside lock control linkage rod is enclosed in a black rubber anti-rattle tube. This tube is not specifically designed to act as a guard around the linkage, but rather to keep the linkage rod from rattling inside of the door. *Photograph 6.* shows the inside of the door with the tool in place to move the linkage rod. Note that the hooked end of the tool surrounds the rubber tube. Twisting the handle of the tool will



A. The Tech-Train 1001 "J" hook tool.



Quick Reference Guide

Vehicle:
2000 Hyundai
Sonata

Bitting:
Ignition, door and
trunk 1-8

Direction Of Turn:
Counter Clockwise
(Passenger Side)

Code Series :
S0001 - S1000

Tool: TT-1001

Keyblank:
Ilco X232, Jet
HY12, Curtis HY-8

pinch the rubber tube around the linkage rod and bind the linkage so that you can move it with the tool.

The linkage is located too high in the door to be seen visually using an inspection light. For that reason, you will have to locate the linkage rod by feel. If you have problems locating the linkage, watch the inside lock

operator for movement as you probe with the tool.

For more information on Tech-Train products call: 800-356-0136; Fax: (850) 476-7410; E-mail: Techtrain@techtrainproductions.com; Web: www.techtrainproductions.com. Circle 269 on Rapid Reply. TNL

Locksmiths & Distributors

by Marc Goldberg

There was a time when the locksmith purchased only from one or two local distributors. In fact, you generally didn't wait for a shipment to arrive via UPS. You just drove down to the company's pick up counter, picked up the products you needed, and maybe you even socialized a little with the staff or with fellow 'smiths on a similar mission.

Not that such encounters don't sometimes still take place, but today a lot of business is done at an arm's length between the locksmith and his or her distributor. You know, there may be a time when we reminisce over the days when you talked to a sales representative on the telephone.

That could easily happen if Internet sales begin to become a more significant percentage of sales.

Each method of dealing with your wholesaler has its advantages. Buying from a local warehouse with a pick up counter assures you that you'll be able to get product and parts in a pinch. Purchasing via a toll free

number may net you a better price if you shop around enough. Use of the Internet allows you to shop at home in your bathrobe in the middle of the night.

Clearly, the locksmith and the distributor need one another. It is simply not possible for you to keep the full range of products you may need on your shelves. Even if it were

possible, it would certainly be economic insanity to tie up your cash flow with months and months worth of merchandise on hand.

The relationship between the locksmith and the wholesaler is a bit more complicated than simple questions of supply and demand. Ideally, the relationship can assist both parties to better prosper and to secure the long-term interests of our mutual industry. Gone wrong, the association between locksmith and distributor can leave either or both parties feeling left out in the cold.

On TheNationalLocksmith.com we have free chat and forums for locksmiths to exchange ideas and information. A member on the website mentions a case in which distributors in Texas assisted local locksmiths to defeat a proposal that would have hurt the industry.

The member, "Lockprone" wrote:

Texas woke up one sunny day and found out the locksmiths could no longer work as locksmiths on exit devices, access controlled devices, alarmed devices of any kind and combination locks without an alarm license.

A number of our distributors thought hmmm, we are going to lose money. They helped us to organize our associations and hire a lobbyist to defeat that law. They put up money, they put out flyers, etc. It was much more than any one locksmith company could, or did do to defend our right to work.

Here is a case in which the efforts of distributors made a real difference

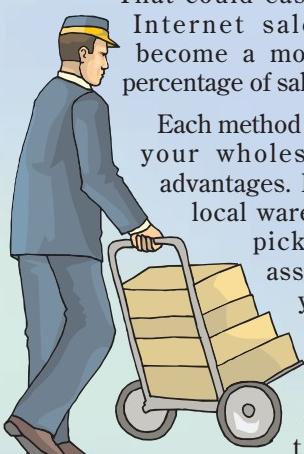
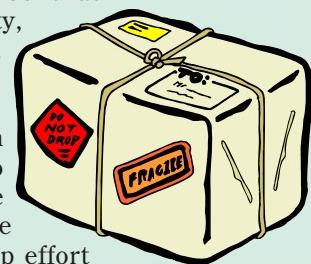
for the locksmith. I recall the problem, which was that the alarm lobby got the state to pass a law requiring an alarm license to so much as touch a security device that used electricity, and even a battery. Among others, Hans Johnson worked hard to reverse the law, and in the end, the group effort was successful.

On the other hand, things are sometimes not so smooth between the supplier and the locksmith.

Lockprone writes of such an incident:

As far as bad stories, I have only one. I called a safe supplier for a drill point on a safe. They turned around and called my competition to give them the drill point and the location of the safe. They notified the people who sold the safe. All of this from the serial number I gave them. They got the job away from me by contacting my customer, and told them they would prefer that this locksmith be used, even though I carry certification from that safe company. They had been trying to get me to carry the line of safes they carry for three months prior. They lost a customer forever.

Sometimes a particular sales rep working for a distributor will go far



40 • Visit www.TheNationalLocksmith.com

out of his or her way to help a locksmith customer.

**Bill Chrisman wrote
of such a case:**

I guess the most help I ever got from a distributor was from my rep. It was on a job I had with a new power plant that had ASSA locks with missing cylinders. He went out of his way to mail me 500.00 worth of cylinders made by another company that we thought might fit. They didn't work of course and I had to return all of it. Plus he had shipped me overnight from across the country. I was charged no restocking fee. Amazing! My rep is always in contact by pager and has never let me down. I don't know if this is a company thing or just an exceptional rep, but anyway, they got my business.

**Ed L. wrote in about the same
company and rep. He said:**

The people out of this distributor went far and above what we expected when we requested some help on displays and some access control products and literature for a local home building show. We received great hardware displays and tons of literature. What we did not expect was the CCTV display! We had a great time at this show and received quite a few jobs out of it!

Of course, the mix of experiences between locksmith and supplier includes both great examples of good business such as those above, as well as some difficulties.

Member Arnold Sintnicolaas wrote:

About a half year ago my customer needed a special lock. "Could I order it?" was the question. I called my distributor and the answer was yes. I ordered this item at 4 p.m. and told them I would pick it up the next day in order to deliver it to my customer. Then at 15 minutes after 5 o'clock my customer canceled the whole job. It was too late now for me to cancel the order with the distributor. Next morning at 8 o'clock I phoned the supplier to cancel. Ok only you have to pay a restocking charge they told me. I asked, a restocking charge? It did not even leave the building of the supplier. Oh yes, this is company policy. I did go on my PC and send the supplier's owner a personal letter. Needless to

say I did not have to pay a restocking charge. If I had to pay. It was the last time I visit that particular supplier.

Sometimes conflict resolution is as simple as communicating with the right person. That is always a better result than allowing a small problem to interrupt a good relationship. While negative aspects of this connection between supplier and customer do exist, remember it is a two way street. I am sure that most wholesalers could also tell a horror

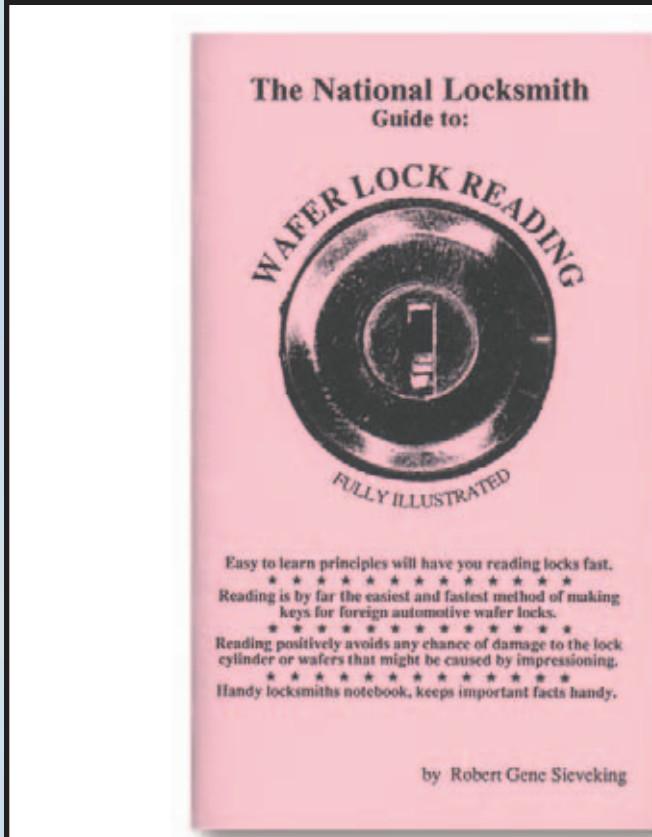


story or two about a difficult locksmith customer.

Whether you buy in person, over the phone, or via the Internet, though, there is still a human being on the other end who should be glad to have your business. Treat them with respect and expect the same in return. When you're disappointed, speak up, and you'll usually find that the distributor can be an important factor in your success as a locksmith.

TNL

Wafer Lock Reading



Easy to learn.
No Codes needed.

CLICK HERE TO LEARN MORE

#WLR - 1



BEGINNER'S CORNER

Get-Jiggy-Wit-It

by
Raymond Moreno

I was originally gonna do two stories...but I got lazy and consolidated them into this one epic adventure. So you get information on two goodies for the admission price of one. You can't beat that!

The story has two main characters. The first is Mr. Get-Jiggy-Wit-It, PRO-LOK's "INJIG-MORT." This jig incorporates unique quick-change cutters, which allow the cutters to be changed in seconds, without removing the jig from the door. This means that both the full lock body and faceplate can be cut out with ease. The mortise hole is automatically centered on the door and accurate results are obtained every time. The jig and its precision cutters will cut a mortise in hard wood, soft wood, composite doors and with the use of special cutters, aluminum doors as well.

The second character is Mr. Marky Brass, "Marks U.S.A. 9000" series light commercial mortise lock. This lock features a 1" throw deadbolt, 1/2" throw latch, rocker switch that locks or unlocks the hub and a high pressure cast Zamac case with a baked enamel finish. The exterior trim package used was the ball knob New Yorker #200.

It's a story of profit, adventure, challenge, and professionalism. A little of what you'd expect in a star performance. You can vote to see whom you think the star really is. (Personally, I think it was the director! Gnuck, gnuck, gnuck!)

The Marks 9000 series mortise lock is very easy to install. It's a solid performer and in the middle-class price range.

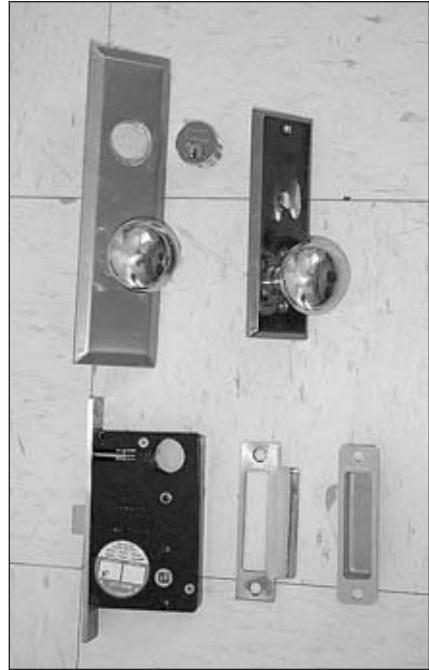
When I first received the PRO-LOK INJIG-MORT, I thought it seemed a bit flimsy at first. However, it proved to be rather solid. It really surprised me the first time I used it. It's also really easy to figure out, and once you get it going works well. The only thing I really disliked about Mr. "Get-Jiggy-Wit-It" was the humongous suitcase it came in.

Well folks, get your pop-corn, kick-back on the sofa and on with the show!"

Continued on page 46



1. I'm dull, worn out and have to go. If you'll notice, this lock is installed upside down as well.



2. The "Marks" 9000 Series, New Yorker. The handing can be easily changed on the spot.



3. As I had already determined, the existing mortise hole was too small for the new Marks lock.



4. Say Hello to my little friend the PRO-LOK "INJIG-MORT". I do not like the carrying case, it's huge. A case half it's size would have sufficed.

Continued from page 44



5. Here's a close-up of the jig with its little cousins, an adjustable collar, 3 1/2" boring shaft and woodcutters.



6. Here are the three different woodcutters that come with the kit, a 7/8", 3/4" and 1". You can also purchase separate blades for cutting aluminum.



7. In this photograph I am adjusting the jig for the bottom cut. The rod has been placed into the jig with the correct sized cutter for the lock body. The cutter is positioned 3/16" lower than the lock body cut. Remember, we're boring a hole for the lock body, not the faceplate. The faceplate will be done later.



8. The next step is to set the adjustable collar to the depth of the lock body. In this case, the Mark's instructions said 3".



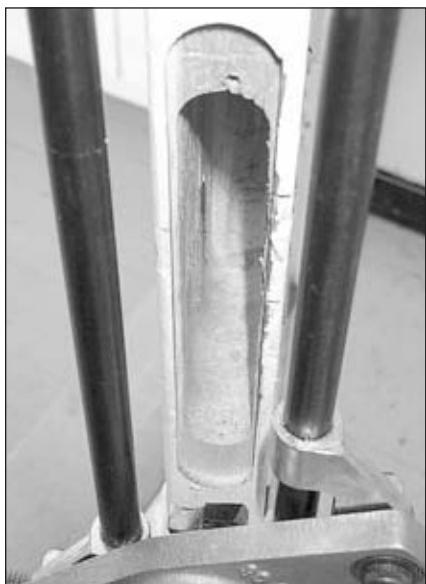
9. I'm ready to start. Notice how the aluminum guide housing pivots on the guide rails to adjust for the door thickness. As a little side note, I must say that I sure do love my Milwaukee drill. It's 6.5 amps of testosterone!



10. With these cutters you must only go in an "up and down" cutting path, not in and out.



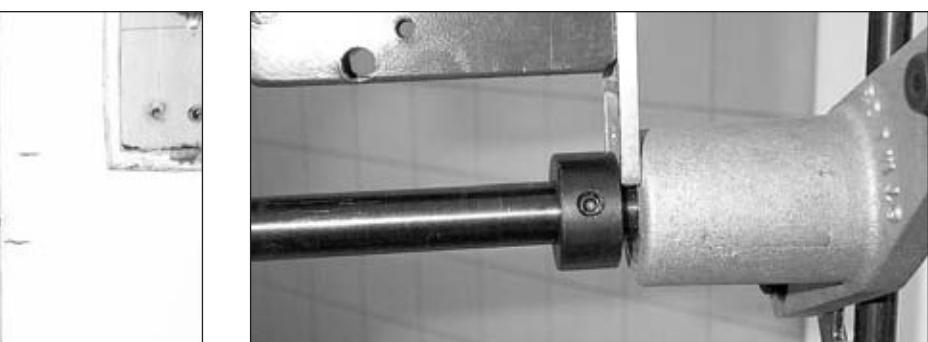
11. Once the lock body mortise is done, I removed the cutter and replaced it with the proper sized one for the faceplate. This time, I will adjust the cutter 3/16" below the faceplate line.



13. Here is a shot of the faceplate mortise perfectly centered. I had no room for error on this door. Notice that there is only about 2/16" on each side of the mortise, this is why the proper tools are so important.



14. This seesaw lever will lock and unlock the exterior knob. So far I have had very good success with the Marks mortise locks.



12. The collar must be adjusted for the depth of the faceplate. The way I do it is I simply gauge the actual thickness of the faceplate on the cutter shaft.

As a safety note, The INJIG-MORT wood cutters are designed to be used at 2000-3000 RPM, in drills with a 1/2" chuck with no hammer-drill action.

You can do this job with no problems. The profits are good and you can walk away hearing the customer say, "Boy, he's good... I wonder what else need to be retrofitted?"



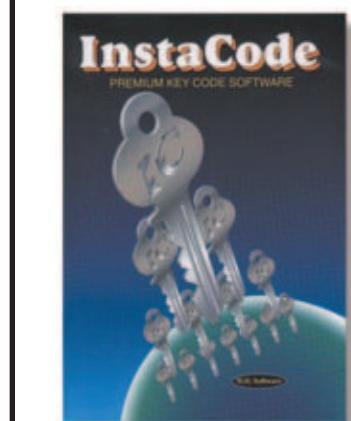
15. Here is the interior view of the lock. The thumb-turn will extend and retract the deadbolt. The operating knob will also retract the deadbolt.

For more information on Marks or PRO-LOK products contact:

Marks U.S.A.
 5300 New Horizons Blvd.
 Amityville, NY 11701
 Phone: 800-526-0233
 Fax: (516) 225-6136
 E-mail: wjs@marksusa.com
 Web: www.marksusa.com
 Circle 270 on Rapid Reply

PRO-LOK
 655 N. Hariton St.
 Orange, CA 92868
 Phone: (714) 633-0681
 Fax: (714) 633-0470
 Web: www.pro-lok.com
 Circle 271 on Rapid Reply **TNL**

InstaCode 2002



[CLICK HERE TO LEARN MORE](#)



The Mighty Mouse Side

Mighty Mouse
Strikes Again.



by
Sara
Probasco

Help! This is Wiley Bronson, down at Wendy's. I'm locked into my office and can't get the door open." Wiley and his dad own the new Wendy's hamburger store and he was not happy. They've had nothing but problems getting the place built on schedule for opening prior to summer tourist season, and now it seemed some of the locks weren't working. Being locked inside his own office seemed the last straw.

All hardware had been installed by the building contractor, so Don had no idea what the problem might be. "Tell me what happens when you try to open the door," he suggested.

"Nothing! That's the problem. The knob turns, but nothing happens. One of my employees have been trying to help from the other side, and it's the same from out there. Look, this is a small office with no windows. I need to get out of here."

Don could detect a slight tremor in Wiley's voice. "Okay," he said, "I'll be right over."

The lockset was a Schlage D-line entry, and it appeared the latch was not retracting for some reason. Don called directions through the door to this increasingly nervous man.

"First, you need to remove the knob on your side," he said.

"I tried, but it won't come off," Wiley replied shakily. "Look, is this going to take long? I'm getting a bit claustrophobic in here."

"Then let's see if we can't get you out of there. Do you see a couple of little holes on the shaft of the door knob, just above the knob itself?"

"Yeah. There they are."

"You need to poke something down into one of those to release the knob," Don said.

"What? In that tiny little hole? I don't have anything small enough to go down in there."

"How about a paper clip?"

"Oh, I would never have thought of that."

Don waited while Wiley rummaged in his desk drawer.

"Okay, I've got a paper clip. Now how do I do this?"

"There are two little holes. Straighten out the clip and poke it straight into the hole closest to the edge of the door knob. You should feel a slight spring action," Don told him.

"Hey, yeah. It gives down in there. How about that!" You'd have thought the guy just discovered spray starch.

"All right, now, while you have that pushed in, pull straight out on the door knob. It should slide right off the shaft."

"Hey, it did. How about that! I took it apart!" Now he was really excited. (Remember what that was like?)

"There's a sort of disc that's screwed on at the base of where the knob was. I'm going to slide my spanner wrench under the door so you can unscrew that for me."

"No need," Wylie said. "It's not on tight. I can unscrew it by hand. Okay, what next?"

Once the rose was off, Don could pull the "guts" out of the lock from his side. Then he caught the back of the latch with a hook tool, and retracted the latch from the door jamb to open the door.

"Voila!" Don said triumphantly as he swung open the office door. He felt tempted to take Keith's "Mighty Mouse" stance but thought better of it. Wiley was so glad just to be out, theatrics would have been wasted on him, anyhow.

"What caused the problem?" Wiley asked once he was out.

"Most likely, the contractor just failed to properly adjust the outside rose when he installed the lockset, then as you used it, the latch gradually became disconnected from the lock assembly until it ceased to function altogether."

Don "snugged up" the outer rose and tightened everything down.

"How about checking the other hardware while you're here, just to be sure everything's okay," Wiley suggested. "I sure don't want to get locked in somewhere else."

Don found another knob that wouldn't retract the latch and got it operational. Then he discovered the cylinder of a panic bar had been installed upside down, so he corrected that.

"I wondered what took you so long," I said when he was telling me about it, later.

"It wasn't any problem, getting him out," Don said. "It just took a while getting all the other locks working properly."

A lady getting keys made overheard our conversation. "I'll never forget one day when I got locked into the school lab," she said. "That was really scary. You know, you don't ever think what it would be like to be locked inside a room, or even a building, all by yourself with no way to get out, unless it happens to you."

"How did you manage to get locked inside the school lab?" I asked.

"It was late on a Friday afternoon," she began, "and I was finishing up some work after classes were over. Everybody else had already gone home when I wound everything up and prepared to leave. You can't imagine how surprised I was when I gathered up my belongings and reached for the door knob, only to find it securely locked. In all my years of teaching there, I had never known that door to be locked. I didn't even have a key to it, and there was no other way out. This was the only door leading out of the chemistry lab, and all the windows were heavily barred against potential vandalism or break-ins. I had no idea they locked that door at night."

"What did you do?" I asked.

"Well, first I nearly panicked!" she admitted. "Then I sat down and told myself I had to remain calm and think this through. Being Friday, I knew if I

wasn't able to rouse somebody before long, I might be locked in there all weekend, and that prospect didn't thrill me at all."

She chuckled, able to find humor in the situation, now that it was past. "I was just lucky, I guess. The custodian was still on the premises, and when I started banging on the door and yelling, he finally heard me and came to unlock the door and let me out. He was just getting ready to leave for the weekend. He had no idea I was still in there."

"That school is totally out of compliance with the type of locks she described," Don muttered. "They're supposed to have only classroom-function locks in school classrooms. That way, it keeps out intruders, but nobody can ever be locked inside."

"I know that; you know that, but does the school know that?" I asked.

"Maybe not today, but they will tomorrow," Don replied. Then he added, "After all, Keith didn't develop the Mighty Mouse image for nothing." Don took the familiar stance and sang — if slightly off key — "Here I am, to save the day!"

Rolling my eyes, I was just glad I'd hidden his Batman costume. **TNL**

Japanese High Security

Japanese High Security
Auto Servicing

Lexus, Millenia, Q45



For Professional Locksmith Use Only

by Michael Hyde

CLICK HERE TO LEARN MORE



#JAP - 1

Penetration Party

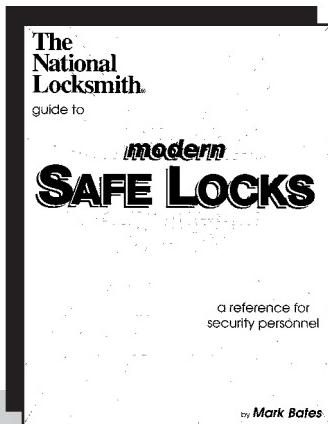
The National Locksmith presents **Dave McOmie's Penetration Party** Volume 1

by Dave McOmie

Uncensored! • The Safes! • The Tools!
• The Action! • The Perfect Openings!
• The Bloopers and Blunders!
• The Slick Tricks!

CLICK HERE TO LEARN MORE





This material was excerpted from the Mark Bates book titled **Modern Safe Locks**. The book covers combination operating and changing procedures for virtually every combination lock both mechanical and electronic, that you will encounter on a daily basis. **Modern Safe Locks** is available for purchase through **The National Locksmith**.

Ilco Unican

MODEL:

674

DESCRIPTION:

Four wheel, key changeable combination safe lock. Dial is numbered 0 to 99 clockwise. Regular change.

RATINGS:

UL Group 2

FACTORY COMBINATION:

5XL to 50, 1XR to open.

OPENING PROCEDURES:

When Set to a 4 Number

- a. 5XR to 10
- b. 4XL to 20
- c. 3XR to 30
- d. 2XL to 40
- e. 1XR to stop (96)

TO LOCK:

Turn dial left 5 times.

FORBIDDEN ZONE:

0 to 20

CHANGING PROCEDURE:

WITH THE SAFE DOOR OPEN...

- a. Dial the existing combination to the changing index (steps *a* through *d* under "Opening Procedures").
- b. Insert change key and turn it left 1/4 turn.
- c. Dial new combination to the changing index (steps *a* through *d* under "Opening Procedures").
- d. Turn change key right 1/4 turn and remove it.
- e. Test combination at opening index (steps *a* through *e* under "Opening Procedures").

TOOLS NEEDED:

Ilco change key No. 67-027

NOTES:

This lock is very similar in appearance to the 673 by the same company. Make certain that you use the four wheel change key on this lock.

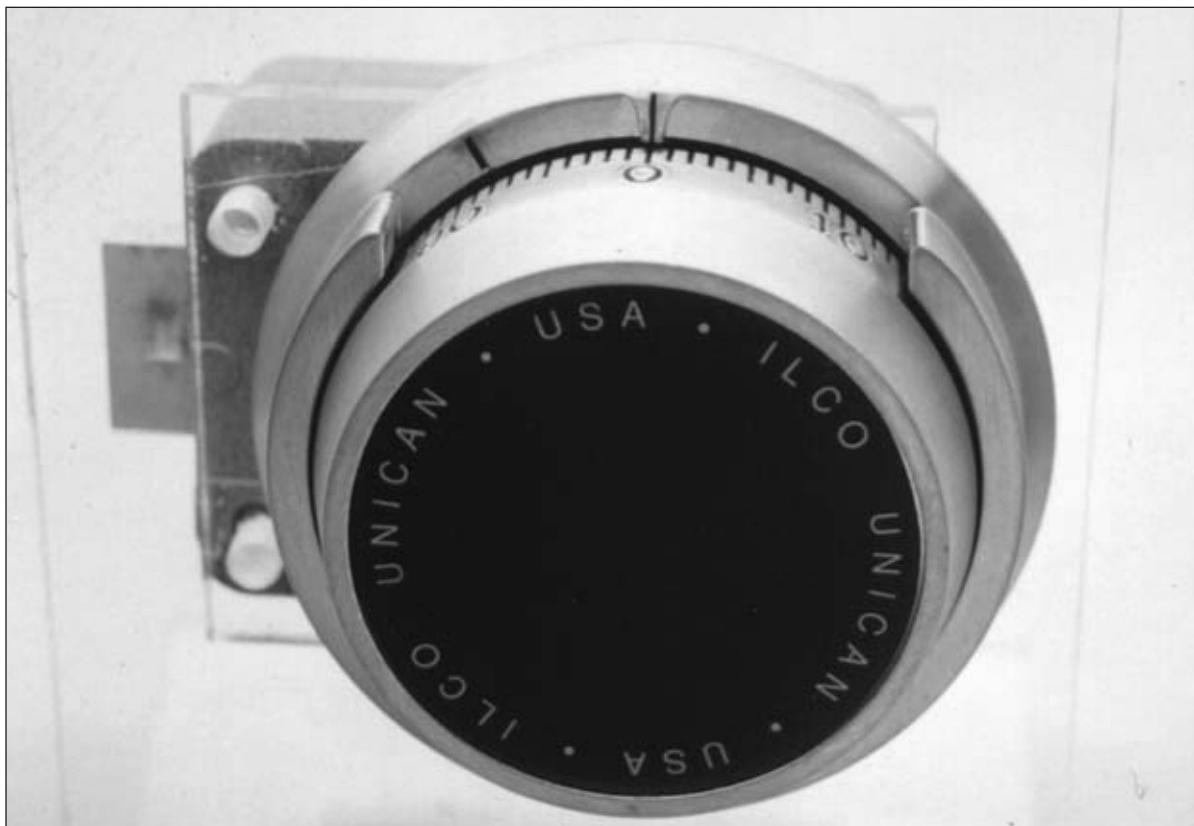
MODERN SAFE LOCKS TECH BULLETIN

Shop the online store

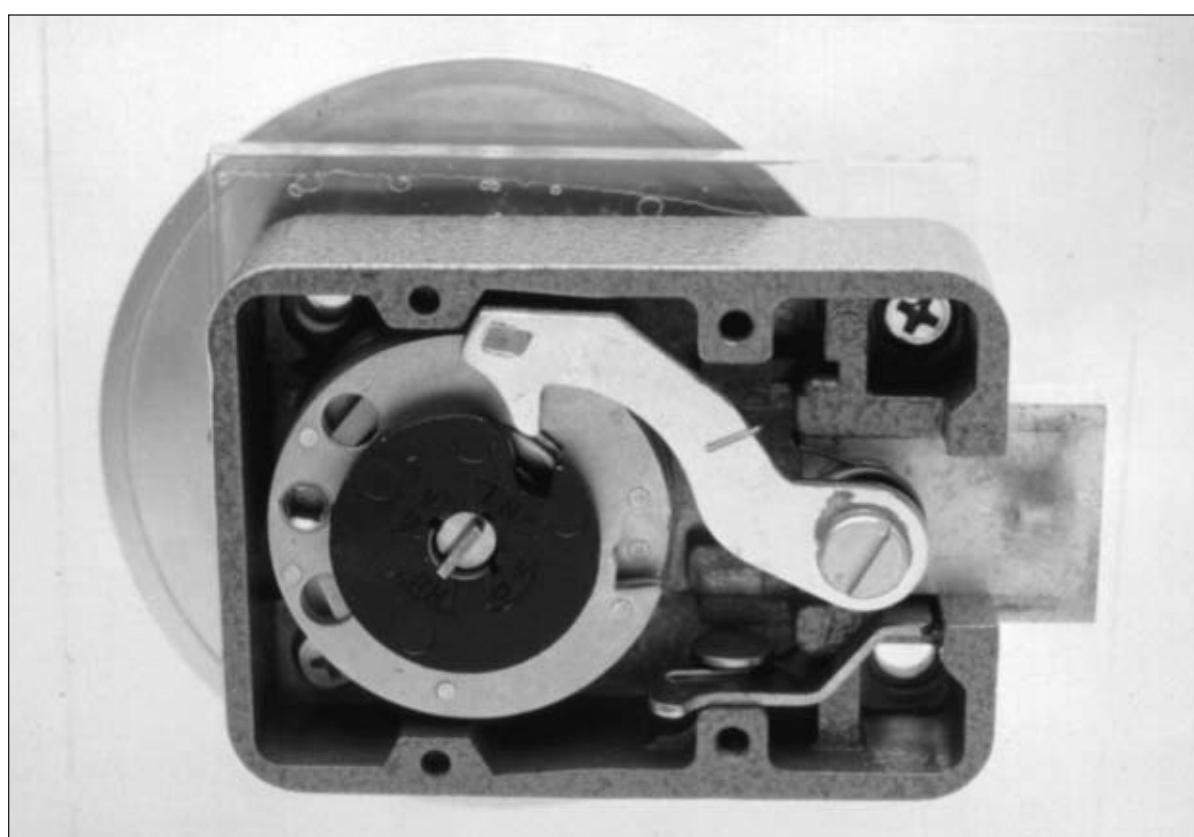
TheNationalLocksmith.com
• CLICK HERE •

MODERN SAFETY LOCKS BY ECHI BUNNELL

Ilco Unican



Ilco Unican 674



Sesamee Padlocks by CCL

For over 50 years the Sesamee keyless padlock has been a choice of the security industry for a resettable dial combination padlock.

Its versatility and resettable features allows up to 10,000 possible combinations for total security control without the worry of keys to carry, lose, or break. It also allows a locksmith to master key through user lists, ID numbers, and combinations, any number of Sesamees in a given location maintained by authorized security personnel.



The Sesamee non-corrosive construction is well known for its durability in an outdoor environment. Its finish choices provide superior wear in adverse weather conditions.

The solid brass bodies and internal mechanisms of the Sesamee padlock inhibit the elements in the event that water does manage to penetrate the exterior of the Sesamee or in the unlikely event it is submerged.

The heel-and-toe locking of the Sesamee shackle is another double-duty locking feature. The internal change device aids in avoiding external elements from penetrating the case of the lock or vandals violating or intentionally abusing the lock from the keyway.

The Sesamee Keyless Padlock has been used in many government, institutional, military and commercial locations worldwide for years. Its reputation and popularity will continue to grow with

the many new markets in these areas.

New models including marine construction (model kcro436) and extra long 4" shackle (model k440) will also provide many new applications for this durable padlock.

The Sesamee Padlock comes with a lifetime guarantee. If the lock for whatever reason should ever fail, CCL will repair or replace it free.

For more information circle #275 on the Rapid Reply Card.

TNL

GM Sidebar Lock Decoder System

The National Locksmith®

GM Sidebar DECODER SYSTEM

Decodes the GM 6 cut sidebar
Works on 148
Model and Year cars!

©1999 National Publishing Co.

By Thomas Thill

Tom Thill, the author of a new book,
has invented an amazing new way
to make keys for six cut
GM Sidebar Locks.

CLICK HERE TO LEARN MORE

#TT - 1



HPC Key Decoder



1. The HPC key decoder.



2. The HPC key decoder comes in a padded hard case.

What do you do when you have to decode the depths of a key? How about a large number of keys? When a customer brings a key to your shop for duplication, and the key is badly worn, how can you measure the key and make another using your code machine, which will restore his key to factory specs?

The HPC Key Decoder was engineered to accurately measure most foreign and domestic pin and disc tumbler keys, allowing you to easily determine the original factory depths. (*See photograph 1.*) There are 110 different resource cards with the HPC key decoder. These cards allow you to instantly change from reading one type of lock to another, without any recalibration. This tool requires no calibration or adjustment. I tried to find a way to "adjust" the calibration, but found it to be highly "fool resistant."

The HPC Key Decoder comes in a padded hard case, which should keep the instrument and its' resource cards organized and safe. (*See photograph 2.*) If you look closely at the photograph of the decoder, you will see that the key decoder pin, which is spring loaded to contact the cut in the key, is labeled "L," "C," and "R." The position of the reader pin handle will indicate the hand of angled cuts, like those found on Medeco keys.

Let's take a close look at one of the resource cards.

Photograph 3, illustrates the card for Medeco Biaxial keys. The name of the manufacturer is across the top of the card. This field, or block, indicates the name of the key manufacturer. In the case of cards that apply to auto keys, this block will indicate the auto manufacturers name.

The card number, "HSP3," indicates that this is HPC special card number 3. Cards are also designated

H, HF, HMC, HPKS, and HX. These designations indicate: standard (H), Foreign or Foreign automotive (HF), Motor Cycle (MC), Kaba Peaks (PKS), and special (X).

The next block is labeled "SHIM." When measuring double sided keys, the depth and configuration of the cuts can leave no "land" for the key to rest on, which will allow the decoder to measure from. When measuring double-sided keys, a shim will be specified in this block. The shim will allow the key to be measured from the step, or offset portion of the key blade.

Photograph 4, shows the three shims, which are included with the HPC Key Decoder. The shims are color coded to indicate their dimension. The red shim is .080" wide. The silver shim is .130" wide, and the black shim is .100" wide. The width of the shim is critical to the accurate measurement of double-sided keys. The shims can be placed in the reader to accommodate; "right over left," and "left over right" key configurations.

Ford primary (ignition) keys, 5 pin or 10 wafer, are right over left. Ford secondary (door and trunk), 5 pin configuration, are left over right.

No shims are required for single sided keys.

The next block indicates the DSD# for the key and/or key configuration being measured. DSD, indicates the Depth and Space Dimension serial location for the HPC CodeMax code machine. The number is the address for locating the key specs. If you are using a CodeMax code machine, you will need this number to access the depth and space information to make the key.

The scale markings, in the next block, are used to decode the key. As you see in *photograph 1,* the needle on the reader will come to rest over a line

HKD 75

BY BOB SIEVEKING



on the scale, to indicate the depth of the cut being measured.

The next block contains a graphic representation of the key. This line drawing allows you to identify the key or manufacturer by the head style and configuration of the key.

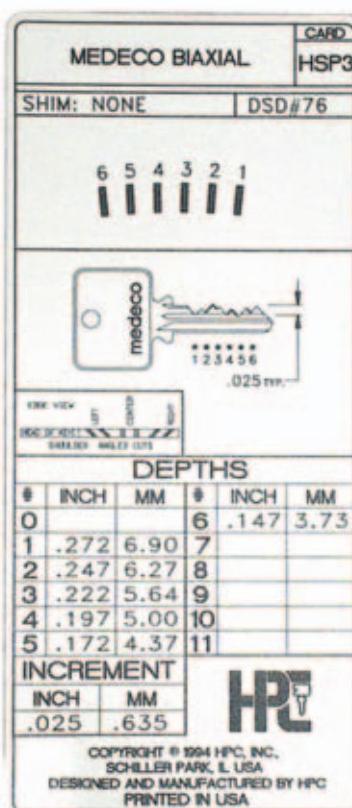
The next field, is a section of blocks that specifies the depths for the key being read.

If you are using an HPC 1200CMB code machine to originate a key from the information found using the key decoder, you will find that the HPC card number coincides with the "card number" found in the upper right hand corner of the reader card. If you were cutting a new key for the Arrow key we are measuring in *photograph 1*, using resource card "H2," you would use 1200CMB code card number 2. This relation follows, through the foreign auto (XF), motorcycle (MC), and special (X) code cards.

If you are asked to service master key systems, and need to decode master and set keys to get a reasonable overview of the system design, this instrument can be invaluable in decoding large numbers of keys. It can also be used to decode auto keys, so that a record can be made of the actual cuts found on the keys. If you maintain a fleet of vehicles, it would be possible to make a file of the key cuts, for use in replacing lost keys. The same application could be used for desk and cabinet keys, or door keys in a building having many unrelated locks.

I found the HPC key decoder to be fast, and accurate (within its limitations). It will not replace your dial caliper, but it will reliably decode most keys.

For more information on HPC products call: Phone: 800-323-3295; Fax: (847) 671-6343; E-mail: HPC@HPCWORLD.COM; Web: www.hpcworld.com. Circle number 283 on Rapid Reply. **TNL**

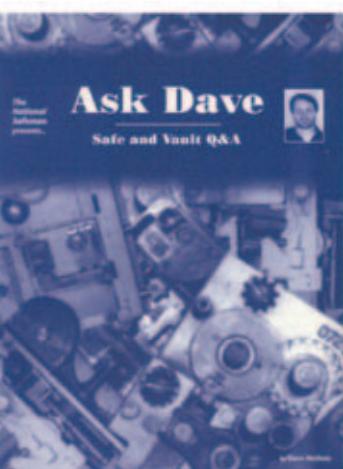


3. The resource cards.



4. The three shims, which are included with the HPC Key Decoder.

Ask Dave



You asked. He answered.
 This is safe and vault
 Q&A with an attitude.

CLICK HERE TO LEARN MORE



#AD - 1

The ROFU 2400 Series Electric Strike



by Richard
Allen Dickey

ROFU International Corporation, is a manufacturer of a variety of door release products. They have been visible in the American market place since 1980, however, the roots of the company go much deeper.

The ROFU organization has its origin in Switzerland. In the spring of 1933 Alfred Rothfuchs founded "Rothfuchs Ing. AG", an electrical consulting and design company. Even though the depression severely hit the Swiss economy, the company continued to prosper.

After the second world war, Rothfuchs Ing. AG became involved in electronics and electric door releases. In the late 1970's Rothfuchs Ing. AG decided to enter the American market as a supplier of electric door releases. Their European models were reengineered to work with American locksets. In 1980, ROFU International Corporation was established in California. The name ROFU was derived from the founder's name, ROthFuchs.

Since ROFU's establishment in America, they have continued to follow the market and upgrade their products. When electromagnetic locks became an approved means of releasing doors, ROFU designed its own models and added them to its line of door release products.

The US headquarters for ROFU has been located in the state of Washington since 1994. Aside from its offices in



I. The
ROFU
2402
on the
left and
2404
electric
strikes
viewed
side by
side.

Switzerland and the United States, ROFU has sales and warehouse operations in Canada and the United Kingdom. Sales in the US are managed through security wholesale distribution and the Companies factory rep organization. Lets take a look at one of their latest products.

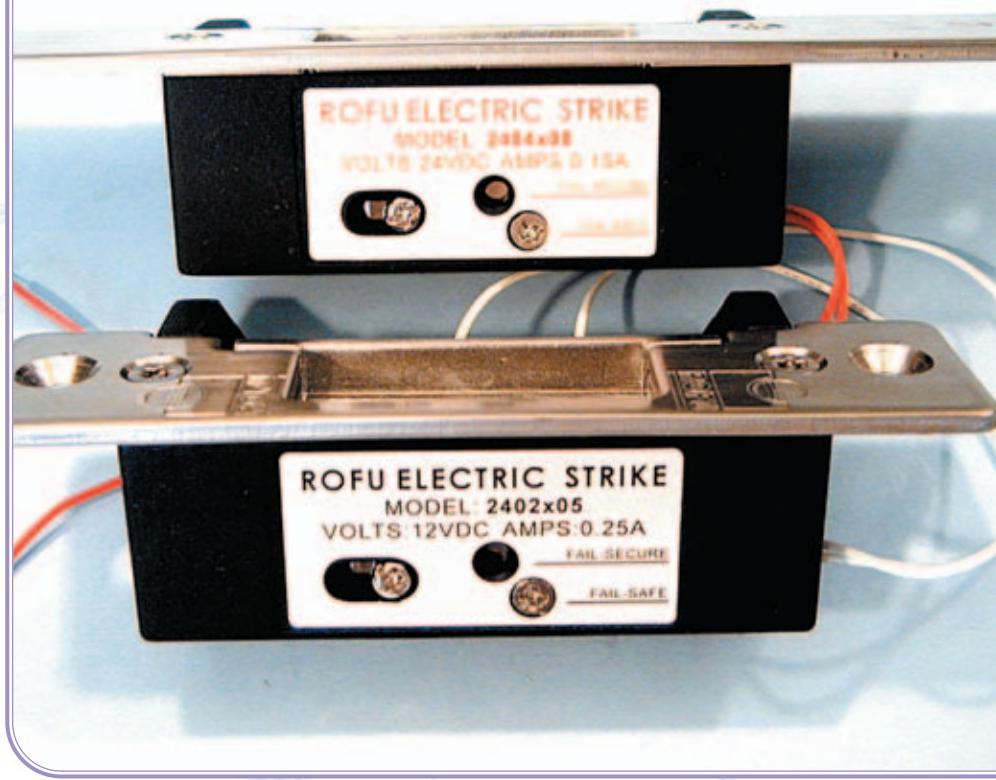
ROFU introduced the 2400 series high security electric strike in 1999.

• 2400 Series •

The 2400 series is a non-handed electric strike designed for commercial and residential use. (*See photograph 1.*) Two models of the 2400 are available at this time.

The 2402 is designed to fit a standard ANSI cutout of 1-1/4" by 4-7/8". The 2404 is designed for use in a wood frame installation. The faceplate of the 2404 is 1-7/16" by 7-15/16". Aside from the difference in the faceplate (and in this case the voltage of the solenoids), there are no differences between the 2402 and the 2404.

Both models are available in 12 or 24 Volt configuration. Both the 12 and 24 Volt models will work with either AC or DC power. However if you desire continuous use (always



2. Side view of the ROFU 2402 (bottom) and 2404 electric strike.

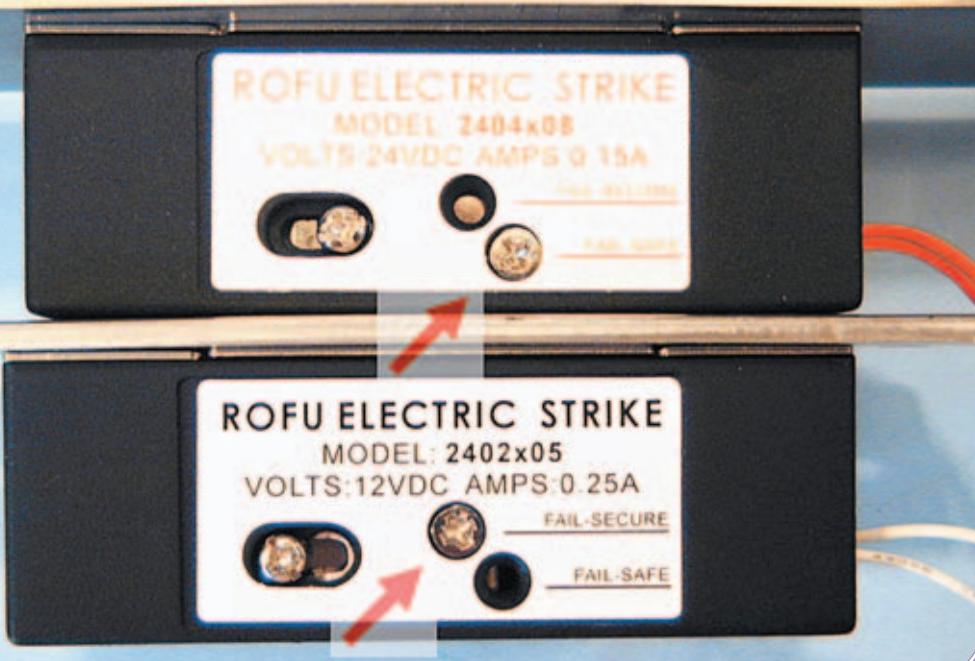


Key Manager

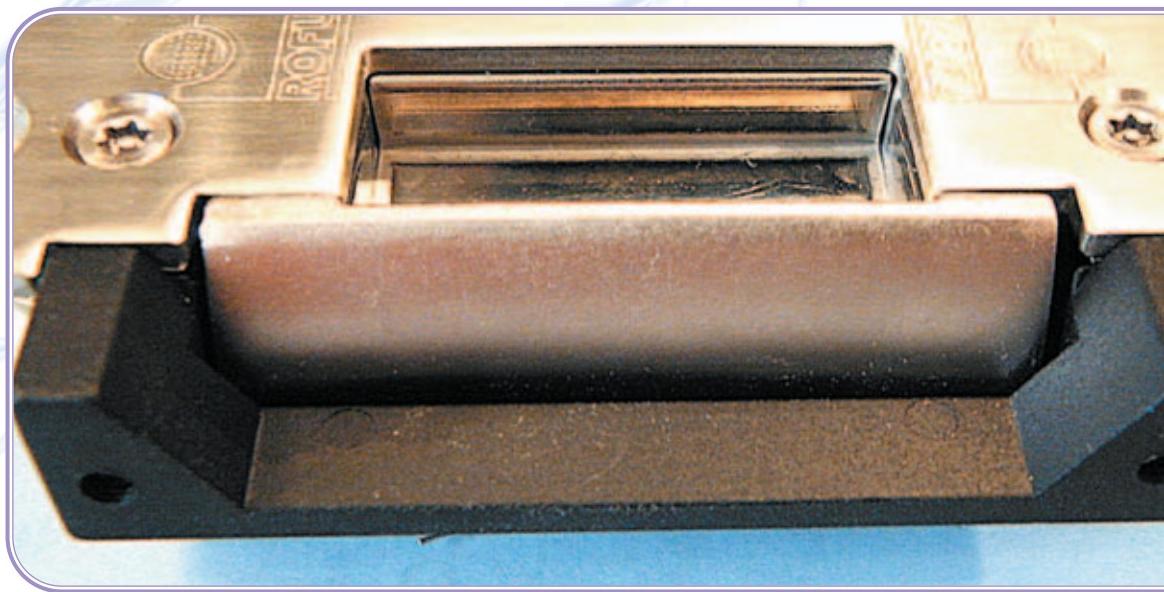
Designed both as a complimentary product for ProMaster and also as a stand alone product, this is a premium quality program, developed in accordance with industry standards and requirements for this type of software.

[CLICK HERE TO LEARN MORE](#)





3. Top strike set for fail-safe and bottom strike set for fail-secure.



4. A view of the stainless steel keeper and lip.

energized) you will need to use DC power. ROFU classifies continuous use as anything between 10 seconds and 10 years.

One of the most interesting features of the strike is its ability to convert from fail-safe to fail-secure and back again in only seconds. *Photograph 2*, shows a side view of the 2402 and 2404. If you look closely you will see two screws in the side of each strike. These two screws are all there is to converting the strike.

Both strikes in *photograph 2*, are set up for fail-safe. That is to say that if you loose power, the strike will allow



5. One of two security screws used to secure the faceplate.

6. The latch box removed from the strike.



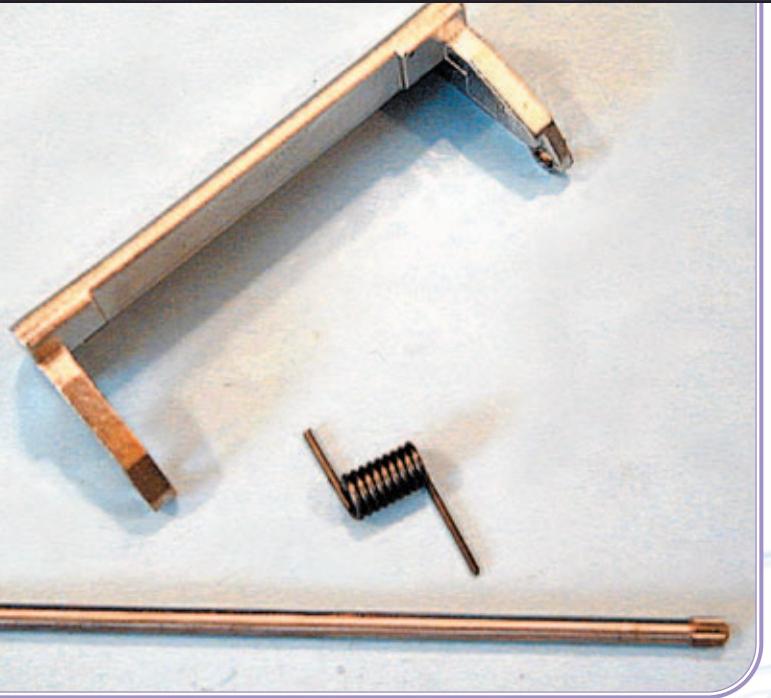
7. Removal of the pin that holds the keeper and keeper spring in place.



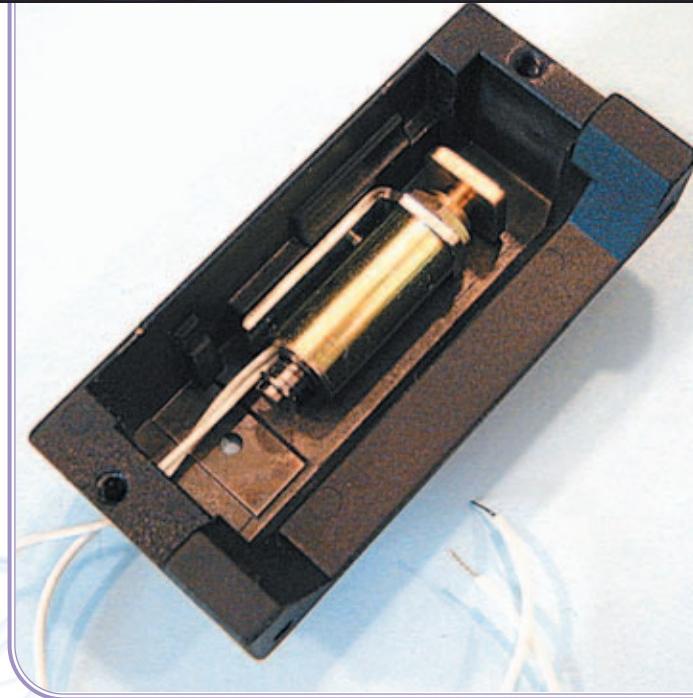
The Ultimate Technitips Collection

Here's one of the most useful books ever available to the locksmith!

[CLICK HERE TO LEARN MORE](#)



8. The keeper, spring and pin.



9. The solenoid inside the housing.

the door to open without an electronic signal from a control unit.

In *photograph 3*, the bottom strike has been converted to fail-secure. All I had to do was remove the screw on the right side and loosen (do not remove) the screw on the left side. This allows the solenoid mounting bracket inside the housing to slide to the left. After sliding the solenoid to the left, a new hole is revealed. Reinstall the screw in this new hole and the conversion is complete. It can't get much easier than that!

I was curious about the insides of the 2400 series, so just for fun I took it apart. The 2400 series has a typical look when viewed from the latch side. (*See photograph 4.*) The first thing I had to do was remove the faceplate. The faceplate is held in place by two security screws. (*See photograph 5.*) Removing the two security screws allows the faceplate and the latch box to be removed. (*See photograph 6.*)

The next part to take out is the stainless steel keeper. The keeper is spring loaded and is held in place by a pin driven through the case. A punch placed on the small end of the pin along with a light tap from a small hammer will loosen the pin so it can be removed. (*See photograph 7.*)

Photograph 8, shows the keeper, spring and pin after they have been removed.

With the keeper out of the way, it is easy to see the inside of the housing. It is surprisingly simple inside. (*See*



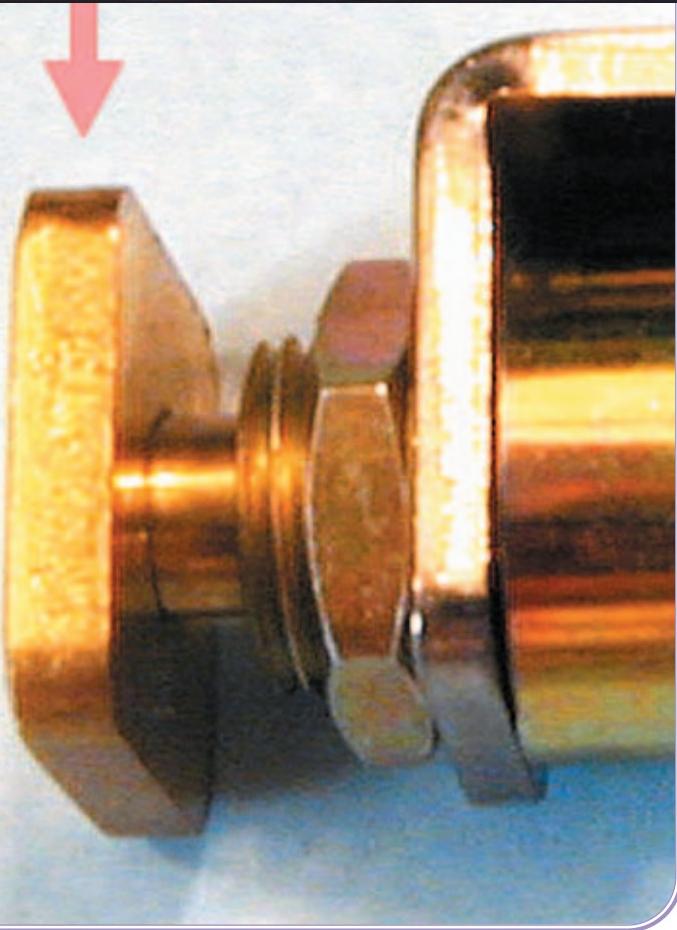
10. The solenoid and its mounting bracket.

photograph 9.) The solenoid and the mounting bracket is all that's left. (*See photograph 10.*) The square piece on the end of the solenoid is the actual part that blocks the keeper. (*See photograph 11.*)

The installation pack included with the strike, includes screws, nuts, wire nuts and two mounting tabs. (*See photograph 12.*)

With a stainless steel faceplate, corrosion resistant case and moving parts, the 2400 is designed to last. Some of the tests performed include a 500,000 cycle test and a tamper strength test of 1500 pounds.

Optional features include a two condition monitor switch and lip extensions of 1 or 2 inches.



II. A closer look at the business end of the solenoid.



12. A complete installation kit included with each electric strike.

You can see all of the products available from ROFU by visiting their web site at www.rofu.com. The complete ROFU product brochure is available upon request or you can download a copy in PDF format from their web site. This is a very well set up brochure and easy to find what you are looking for.

*For more information about the ROFU 2400 series electric strike or any of their other products call: (253) 922-1828 or 800-255-ROFU; Fax: 253-922-1728; E-mail: julie.ROFU@prodigy.net. Circle 274 on Rapid Reply. **TNL***

The National Locksmith.

The Best Of
Dale Libby

This book contains a specially selected collection of new and reprinted articles from author and safecracker, Dale Libby. Topics include: Safe opening, service, and tools; Car opening; Alarms; Locks; and Much More!

The Best of Dale Libby

These are the articles that started the safe opening revolution.

CLICK HERE TO LEARN MORE

#DALE



FINDING Bumil, Knight, and Brinks COMBINATIONS

This month I will present a way to quickly manipulate the ever-present Bumil safe and its many names and manifestations. Tommy Powers and I (the diabolical duo) discovered a manipulating sequence that will open all Bumil safes quickly and easily. Also included is a list of 25 try-out keys that work these omnipresent safes.

The Bumil safe can appear in many forms and with many names. I have

seen Knight Safes, Cisco Safes, Brinks Safes, and other no-name safes that can be opened with this method.

The safe containers in question use a key to move the bolt bar into the safe body. *Photograph 1*, is the door of a Knight/Bumil safe showing the dial and key lock. *Photograph 2*, is the interior door configuration of the same safe. *Photograph 3*, is a door shot of yet another Knight/Bumil door with *photograph 4*, showing a variation of the door interior from *photograph 2*. The escutcheons and dials on both safes are different, but the key locks are the same. This is what determines if our system will work.

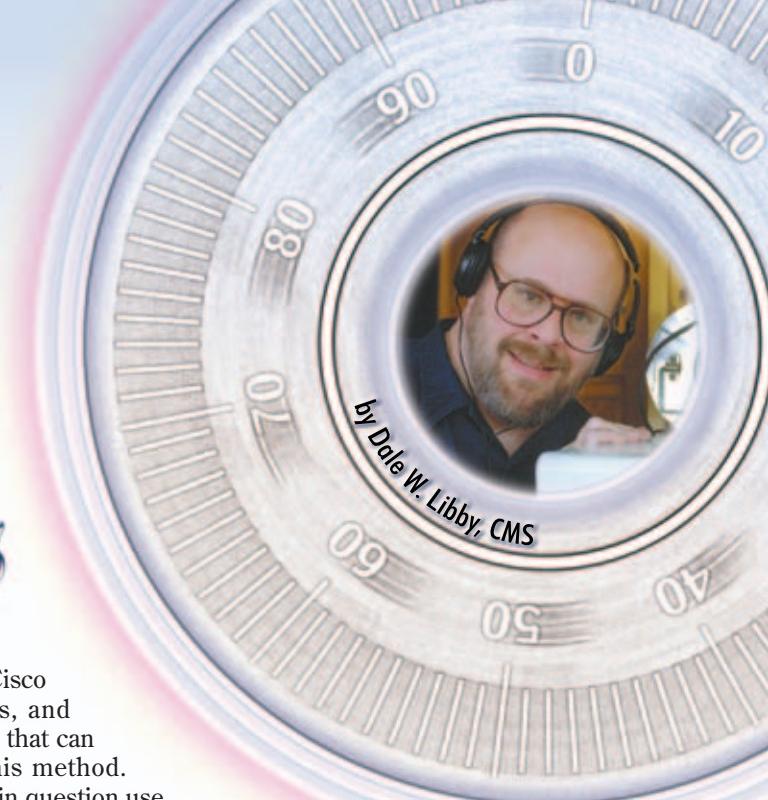
If the lock takes any of the following key blanks, this manipulating system will work. They are all the same blank, similar to a Volvo single sided key blank used in the 1960's.

Ilco/EZ.....	V61A
Taylor.....	65V
Curtis	MB13
Silca	ASS1

All that is necessary to determine the working combination is to find the last number of the combination sequence. The rest of the try-out combinations will be determined from this one number alone.



1. THE DOOR OF A KNIGHT/BUMIL SAFE.



by Dale W. Libby, CMS



3. A SLIGHTLY DIFFERENT DOOR CONFIGURATION OF YET ANOTHER KNIGHT/BUMIL SAFE.

2. THE WHEEL PACK AND BOLT CARRYING BAR OF THE FIRST SAFE.

These locks use a direct drive mechanism. The drive wheel has no false gates in it, so all that is necessary is to turn the key to apply pressure on the last wheel to determine the drop in number. There are four wheels in this lock. If you do not have a key, you can pick the pin tumbler lock and apply pressure on the wheel pack with a turning wrench. Not much pressure is needed. There is an approximate 6 number gate opening.

If you cannot pick the lock, then use the try-out keys to get the lock into a position to determine the last number. I personally pick the lock if a key is not present so I can "make" a key for the lock after the safe door is open. I just find the key that works and duplicate it.

Illustration A, shows a blank manipulation form and the procedure

to find the prime combination on which all the others are based. Let us go through a sample manipulation and you will see how easy it really is to accomplish this.

With pressure on the wheel pack I find that the gate on the drive wheel is between 40 and 46. Splitting the difference gives us the last number of 43. This may vary a little, but try to have the number in the center of the gate, halfway between both edges of the gate edges. On the manipulation chart I fill in the last column on the right with the number 43 all the way to the bottom. (*See illustration B*.) This number will not change and is a constant. This is the 4th wheel and the last number of the combination sequence.

To determine the third wheel and third number of the combination, I add 5 numbers to the last wheel. $43 + 5$



4. THE WHEEL PACK AND BOLT CARRYING BAR OF THE SECOND SAFE.

Bumil Manipulation - Try Out Combinations

Equation: Determine 4th or Drive wheel number and center

3rd wheel is 4th number plus	5
2nd wheel is 3rd number plus	15
1st wheel is 2nd wheel plus	40

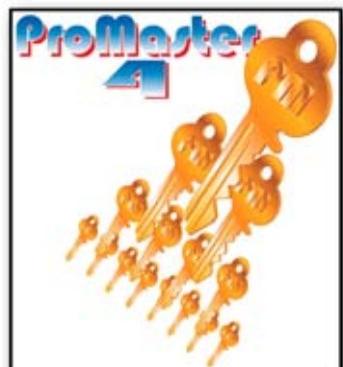
Add 5 numbers to each combination and run to open

1st wheel	2nd Wheel	3rd Wheel	4th Wheel (Drive Wheel)
4 times Right	3 times Left	2 times Right	1 time Left

1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

A. A BLANK MANIPULATION FORM AND THE PROCEDURE TO FIND THE PRIME COMBINATION.

ProMaster 4



ProMaster 4 is without a doubt, the most comprehensive and easy to use master-key system management tool available anywhere in the world.

CLICK HERE TO LEARN MORE



#PM - 5

**B. FILL IN
THE LAST
COLUMN ON
THE RIGHT
WITH THE
NUMBER 43
ALL THE WAY
TO THE
BOTTOM.**

Bumil Manipulation - Try Out Combinations				
Equation: Determine 4th or Drive wheel number and center				
3rd wheel is 4th number plus		5		
2nd wheel is 3rd number plus		15		
1st wheel is 2nd wheel plus		40		
Add 5 numbers to each combination and run to open				
1st wheel	2nd Wheel	3rd Wheel	4th Wheel (Drive Wheel)	
4 times Right	3 times Left	2 times Right	1 time Left	
1	3	63	48	43
2			43	
3			43	
4			43	
5			43	
6			43	
7			43	
8			43	
9			43	
10			43	
11			43	
12			43	
13			43	
14			43	
15			43	
16			43	
17			43	
18			43	
19			43	
20			43	

Bumil Manipulation - Try Out Combinations				
Equation: Determine 4th or Drive wheel number and center				
3rd wheel is 4th number plus		5		
2nd wheel is 3rd number plus		15		
1st wheel is 2nd wheel plus		40		
Add 5 numbers to each combination and run to open				
1st wheel	2nd Wheel	3rd Wheel	4th Wheel (Drive Wheel)	
4 times Right	3 times Left	2 times Right	1 time Left	
1	3	63	48	43
2	8	68	53	43
3	13	73	58	43
4	18	78	63	43
5	23	83	68	43
6	28	88	73	43
7	33	93	78	43
8	38	98	83	43
9	43	3	88	43
10	48	8	93	43
11				43
12				43
13				43
14				43
15				43
16				43
17				43
18				43
19				43
20				43

**C. THE FIRST
10 POSSIBLE
TRY-OUT
COMBINATIONS.**

Try Out Keys - Bumil (LAZER CUT)		
Space	Widen To:	Depth:
1	.290 - .325	1 = .256
2	.440 - .470	2 = .225
3	.585 - .620	3 = .195
4	.730 - .760	
Key #	Cuts:	
1	1213	
2	1221	
3	1311	
4	1313	
5	1321	
6	1332	
7	2112	
8	2121	
9	2123	
10	2132	
11	2211	
12	2231	
13	2312	
14	2321	
15	2323	
16	2332	
17	3112	
18	3113	
19	3121	
20	3122	
21	3131	
22	3212	
23	3221	
24	3232	
25	3322	

**D. THE KEY
BITTINGS.**

equals 48. I enter this number in the 3rd wheel column. I add 15 numbers to this result ($48 + 15$) and I get 63, which is the 2nd wheel and the second number of the combination. For the first wheel, I add 40 to the previous result ($63 + 40$) and I get 103. In adding numbers that give a result great than 100, ignore the hundreds place and drop the one. Thus $63 + 40$ equals 03.

I have now determined the basic prime combination. To get the additional numbers, I add 5 numbers to each number in each column except the last column. This number remains constant. So try-out combination #2 would be $3 + 5 = 8$, $63 + 5 = 68$, and $48 + 5 = 53$. So, combination #2 would be 8, 68, 53, and 43 as the last number. I have filled in

illustration C, with the first 10 possible try-out combinations. It is simple, but it works.

Tom and I sat on this method for about 18-months before publishing it. We wanted to make sure that it really did work. We have tried it in the field and on all the new safes that we sold, and it has worked every time. We would like some feedback on your experience with this method, so write and tell me what you think.

Tom is the great writer of facts. He writes master key systems by hand and keeps track of everything in great detail. Once I am assigned something, I also keep copious notes. Tom asked me to keep a record of all keys on these safes, the depths in particular. This I did, and we came up with a set of 25 different try-out keys cut on the

Silca ASS1 key blank. There are 3 depths that we use and 4 spaces.

To make the set more interesting, we decided on our own depths and to make the cuts wider than normal. By doing this, we determined that there were more possibilities that our try-out set could accomplish. It worked. In fact, sometimes more than one key on the set will work the key lock. The key bittings can be seen in *illustration D*. I found 3 keys on the try-out set that worked one of the Knight Safe's pictured. The keys were different, but they all worked. Let's hear it for wide cuts.

The alternative to opening these simple safes without the try-out combinations is to drill, view the wheels with a scope, open the safe, and repair the hole. Believe me, it is much simpler and quicker to find the last wheel number and fill out the chart.

One important note is to dial the wheels in the correct sequence. It is right, left, right left. When dialing a fixed wheel combination (wheels without movable fly's), the turning of the wheels in the correct direction is imperative. A combination that works Right, Left, Right, Left, will not work in the opposite direction. Each combination position in the chart is also marked with the correct turning sequence. 4 times RIGHT, 3 Times LEFT, etc.

So open, use try-out combinations, and prosper! **TNL**

by Don O'Shall

BLIND KEY MARKING

Alternative key markings in a masterkey system.

Usually the keys for a master key system will have numbers, or a combination of letters and numbers, stamped on them. These may represent the actual cuts on the key (Direct Code), how the key fits into the overall system (Standard Key Coding), or simply where the key operates (a room number for example). On the other hand, if the symbols stamped on the key do not telegraph any information about the key to the casual observer, but can in some way be cross-indexed to match keys with their cuts and/or where they fit into the system, this is referred to as a Blind Code. One manufacturer uses a set of "blind codes" to identify the keyway, even though the cut depths are shown in Direct Code. For example, its "27" keyway might be stamped "3K" on a 5 pin or "3J" on a six pin, (both on the "27" keyway), followed by the actual cut depths for the key. Nevertheless it should be noted that if the cuts themselves appear as part of the key marking, it is still Direct Code, and not a true Blind Code.

In many systems the security of the occupants is a primary concern. It is felt that giving any information on the key, whether it is the pattern of cut depths, its position in the hierarchy of the system, or even what room or rooms it fits, could leave the system owner in an unfavorable legal position. Nevertheless, if a key appears, or is about to be used for a room charge, the system owners (or their authorized representatives) want to be able to identify it. In these cases the keys are frequently stamped with a group of numbers and letters that give no information as to its cut depths to the casual observer. The system

owner or authorized manager can instead look on a list to find out which room that key will fit. In hotels, the list often changes weekly, as locks are swapped from room to room for security. During the busy season, the list may be changed daily in some systems. This type of identification is called a Blind Code, and is preferred in most large master key systems.

Blind Codes can be created by several acceptable methods. The first, and generally the most secure, is a random assignment. A mixture of letter and numbers is randomly arranged and the key cut combinations are linked to each. Either a long list (Codebook) is created or a Computerized Matching is maintained. Another method is to use some form of Encryption, where a direct link exists, but it is not generally apparent to random observers. The most common forms of these are Direct Transposition and Tabled Transposition. In Direct Transposition Codes there is a direct replacement for all the values. A common example of the Direct

Transposition Code of this is the PATHFINDER(S) code series, which uses either the ten-digit word "Pathfinder" or the eleven-digit word "Pathfinders" as the code key (or translating guide). Basically, a number is substituted for each of the letters, such as:

P=1 A=2 T=3 H=4 F=5 I=6 N=7 D=8
E=9 R=0

Of course this could be reversed and be equally simple to remember,

P=0 A=9 T=8 H=7 F=6 I=5 N=4 D=3
E=2 R=1

Or it could be randomized, such as:

P=1 A=0 T=2 H=9 F=3 I=8 N=4 D=7
E=5 R=6

The 11th digit is often used as a code indicator to repeat the previous number, so that the number 11 for example instead of becoming PP in the first method above, becomes PS, while 22 becomes AS instead of AA, making it even less obvious to the casual observer. Although each of these variations is well known, none telegraph that this is the method used,

	1	2	3	4	5	6	7	8	9	0
1	I	J	A	M	E	S	B	O	N	D
2	J	A	M	E	S	B	O	N	D	I
3	A	M	E	S	B	O	N	D	I	J
4	M	E	S	B	O	N	D	I	J	A
5	E	S	B	O	N	D	I	J	A	M
6	S	B	O	N	D	I	J	A	M	E
7	B	O	N	D	I	J	A	M	E	S
8	O	N	D	I	J	A	M	E	S	B
9	N	D	I	J	A	M	E	S	B	O
0	D	I	J	A	M	E	S	B	O	N

1. Tabled Transposition.

so each offers reasonable security. Other common keywords are SECURITY NOW and I JAMES BOND. Of course, you can create your own, such as MY SON JAMES, for even better security.

Tabled Transposition consists of a similar method, but the value of each digit varies depending on its relative position within the total end product. In Tabled Transposition, a code chart (or table) is needed to translate the code even though it is a

Of course, PATHFINDER could have been used as a tabled transposition instead. The values could have been reversed or scrambled, and its use would still have been similar. There are so many possibilities that these simple codes do not readily telegraph any information to an outside observer, yet remain simple for you to use to decode the cuts when needed. In this example, a code of 1 1 2 2 3 3 becomes P A H F N D. (See figure 2.)

1	2	3	4	5	6	7	8	9	0	
1	P	A	T	H	F	I	N	D	E	R
2	A	T	H	F	I	N	D	E	R	P
3	T	H	F	I	N	D	E	R	P	A
4	H	F	I	N	D	E	R	P	A	T
5	F	I	N	D	E	R	P	A	T	H
6	I	N	D	E	R	P	A	T	H	F
7	N	D	E	R	P	A	T	H	F	I
8	D	E	R	P	A	T	H	F	I	N
9	E	R	P	A	T	H	F	I	N	D
0	R	P	A	T	H	F	I	N	D	E

2. PATHFINDER could have been used as a tabled transposition.

simple set to remember and the chart can be created in the field as needed. The basic chart for I JAMES BOND is shown in Figure 1.

In this example, a code of 1 1 2 2 3 3 becomes I J M E B O. The top horizontal row of numbers represents the biting numbers. The left vertical row of numbers represent the position of the biting within the key biting array. Take the number of the biting and match it to the position it resides in for the coded number. The number that it intersects is the coded biting.

Another method of Blind Coding is to simply convert the decimals representing the cuts on the key into hexadecimal using an algorithm. You can even use the "Scientific View" on the Windows Calculator on your computer, type the number in with either decimal or Hex selected on the radio button, and then select the other for a quick conversion. A key with cuts of 3-2-5-8-4-6 becomes stamped with 4F8D6. Want even better security? Add a constant to each of the decimals numbers first, ignoring any portions above ten, as shown in Figure 3.

Becomes 4 4 8 1 6 7 which is 6D6A7 in hexadecimal.

Of course, when converting it back, remember that you must "borrow" a ten if the number on the bottom is larger, as shown in Figure 4.

This article is not meant to be fully comprehensive. With a little thought, you can probably come up with other methods of developing a Blind Coding system for your own use. The effective use of some form of Blind Coding for the key marks in a master key system can greatly enhance security within that system and can enhance your imagination as a master keying specialist.

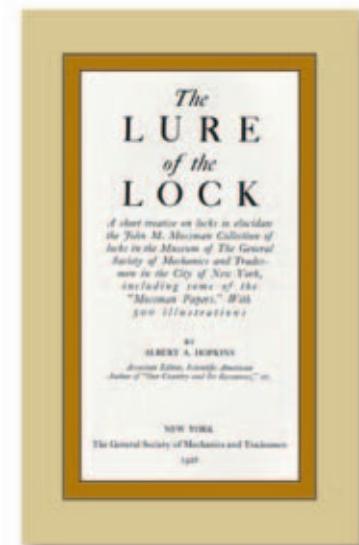
3	2	5	8	4	6
<u>+1</u>	<u>+2</u>	<u>+3</u>	<u>+3</u>	<u>+2</u>	<u>+1</u>
4	4	8	11	6	7

3. Another method of Blind Coding is to convert the decimals into hexadecimal using an algorithm.

4	4	8	11	6	7
<u>-1</u>	<u>-2</u>	<u>-3</u>	<u>-3</u>	<u>-2</u>	<u>-1</u>
3	2	5	8	4	6

4. When converting it back, remember that you must "borrow" a ten.

The Lure of the Lock



This hardcover book, compiled in 1928, features dozens and dozens of beautiful photographs on ancient through modern locks.

[CLICK HERE TO LEARN MORE](#)



#LURE

TNL

Road Rally

A showcase of locksmith service vehicles.

If you think your vehicle has what it takes to be featured here, send photographs and descriptions to:
The National Locksmith, Road Rally, 1533 Burgundy Parkway, Streamwood, Illinois 60107-1861.



Owner: Mike Edwards,
Jerseyville, IL



Owner: Neil Ziefflie,
Wetaskiwin, Alberta



Owner: James Hawley,
Phoenix, AZ



Owner: Art Lawrence,
Lamar, CO

2000 Isuzu Vehicross

by Tony Vigil & Nelson Rivera



The explosion in popularity of Sports Utility Vehicles (SUVs) has led to an equal explosion in the number of new SUVs available on the market. In addition to the giant vehicles on sale now (Suburban's, Explorer's, Expedition's, etc.), a host of smaller, funnier looking SUVs are marketed to

young, hip audiences (Toyota's RAV4, Isuzu Amigo, etc.)

Now, a new crop of SUVs are making their way to the market — the hybrid car-jeeps. These SUVs are generally smaller than the average jeep, yet larger — at least taller — than the average car. They are extremely stylish (of course, one man's "stylish" is

another man's "ugly") fun to drive and not necessarily intended for off-road driving. As long as SUVs remain popular, look for an increasing number of these hybrid vehicles to hit the road, as auto makers look for something to distinguish their product from the other million competitors out there.

One of the new brands of SUVs already making a dent in the US market is the new Isuzu Vehicross. (See photograph 1.) This wild looking vehicle gets attention wherever it is, but while Car and Driver magazine proclaimed that Vehicross might be the sexiest SUV ever, it also acknowledged that not all the stares it gets are in admiration. Either way, expect to see plenty of these on the road in 2001 as Isuzu boosts its production to meet demand in the US.



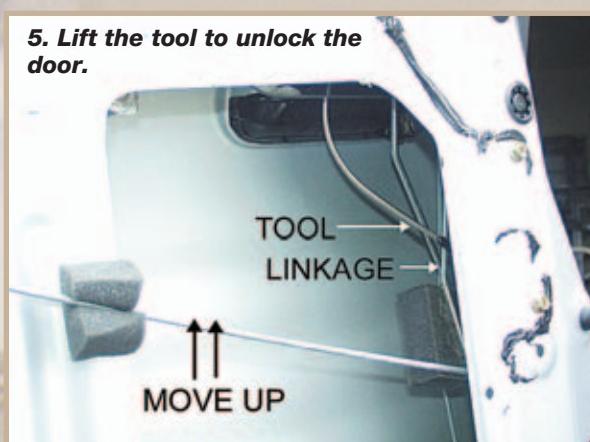
1. The 2000 Isuzu Vehicross.



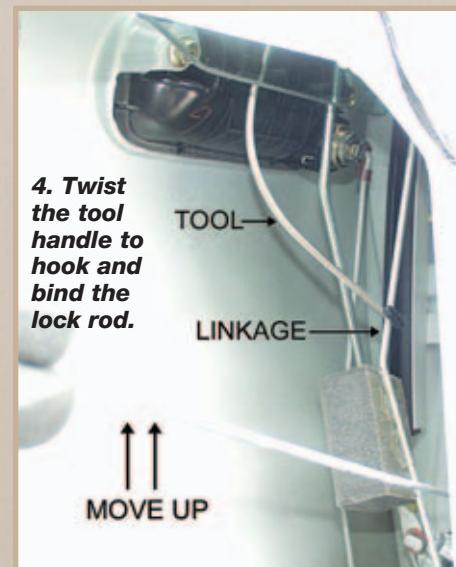
2. Use a strip saver and wedge on the passenger side door.



3. The tool does not have to be lowered very far.



5. Lift the tool to unlock the door.



4. Twist the tool handle to hook and bind the lock rod.

While the Vehicross is one of the most exotic vehicles you will ever come across, the lock system is rather pedestrian in some regards. The Vehicross employs a vertical lock linkage in the door. To perform this opening, we will be using the popular High Tech Tools, number 47 "S" tool.

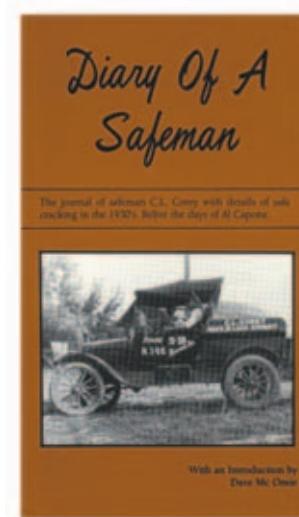
First, use the strip saver and wedge on the passenger side door to create an opening for the tool, as shown in photograph 2. Next, take the "S" tool and lower it into the door directly above the door handle. Note in photograph 3, with the tool in working position, that the tool does not have to be lowered very far into the door to access the linkage. In fact, lowering the "S" tool too far down the door cavity will actually cause one to miss the door lock rod, due to a bend in the rod and a protector behind the rod. The protector actually prevents the rod from rattling during high speed driving.

Once lowered into the door, twist the tool handle to hook and bind the lock rod with the rubber tipped end of the tool, as shown in photograph 4. When contact with the lock rod is made, the door lock button on the inside of the vehicle should move. Finally, lift the tool to unlock the door. (See photograph 5.)

For more information contact: High Tech Tools, 1400 SW First St., Miami, FL 33135. Phone: 800-323-8324; Web: www.hightechtools.com. Circle number 282 on Rapid Reply.

TNL

Diary Of A Safeman



This book is a real gem...the private safe diary of old time safecracker C.L. Corey.

CLICK HERE TO LEARN MORE

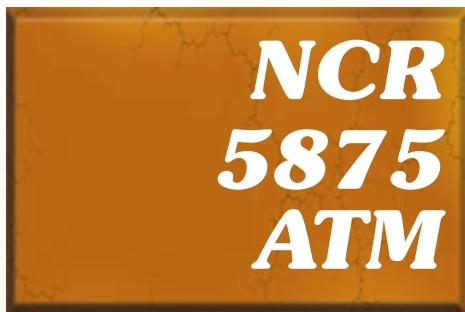
#DIARY





THE CASH STATION

by Mark Daniel



ATM Manufacturer:
NCR 5875 ATM

ATM Model #:
Class 5875, Model #0101

Handle Type:
L-style

Handle Location:
20-1/4" down, 4" left of opening edge of door.

Handle Rotation:
Counter-clockwise to open.

Dial Center to Handle Center:
6"

Dial Location:
14-1/4" down from top of door, 9" over from opening edge of door.



Number of Door Locking Bolts:

There is one 17" sliding locking plate.

Door Locking Bolt Diameter:
5/16" thick.

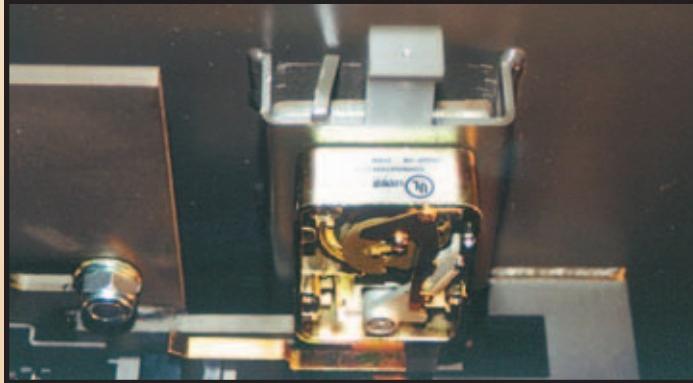
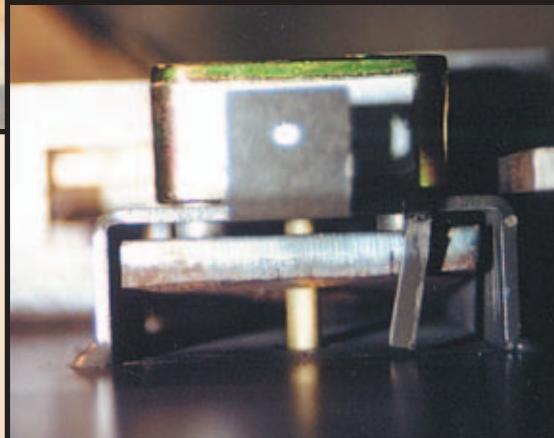
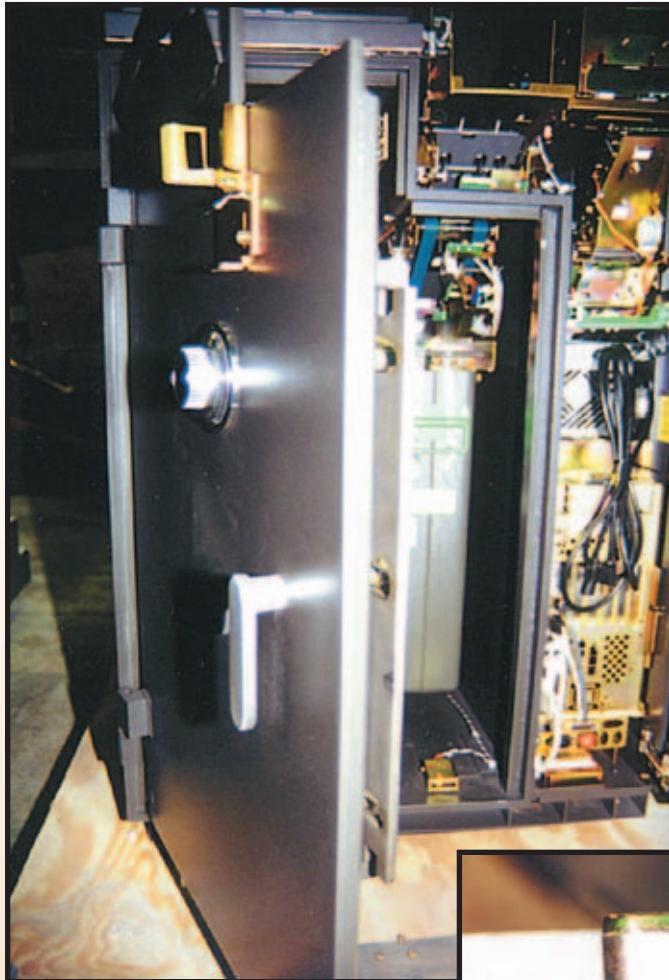
Door Thickness to Bolt Center:
1-7/8"

Door Thickness to Lock Case:
1-3/4"

Door Thickness to Back of Lock:

2-7/8"

Combination Lock Type:
LaGard 3332



NCR 5875 ATM

Combination Lock Description:

Group 2M (Manipulation resistant) key changeable combination lock.

Combination Lock Case Thickness:
1-1/8"

Number of Wheels:
3

Driver Location:
Rear

Combination Lock Handing:
Vertical Down (VD)

Drop-In Location:
72

Forbidden Zone:
0 - 20

Combination Lock Opening Procedures:
4xL to first number. 3xR to second number. 2xL to third number. 1xR until dial stops.

Combination Lock Drill Point:
7/8" from dial center at 72. Align wheel gates at fence lever.

Combination Lock Relock Trigger Type:
Wire spring, activated when combination lock cover is removed or punched.

Combination Lock Relock Trigger Drill Point:

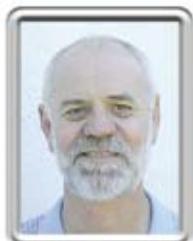
7/8" right of dial center and 1-5/8" down. Grab the relock trigger arm with a hook wire and pull towards you to release.

External Relock Device Type:
None

Special Notes:

Hard plate is free floating in a cavity welded to back of door that doubles as the lock mounting plate.

Motorcycle Updates



by John Blankenship

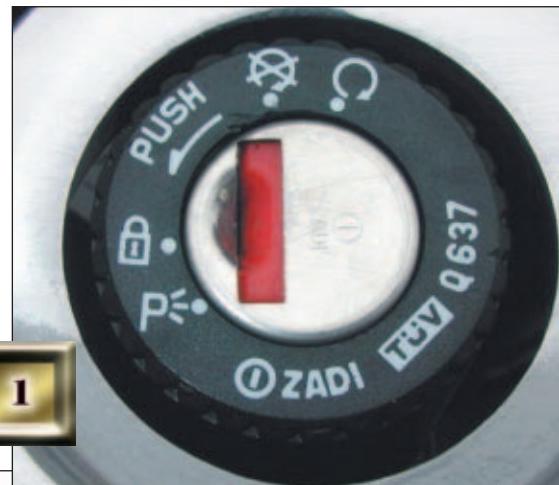
As another year comes to an end, this month I will leave you with a few motorcycle related topics to add to your arsenal of knowledge.

Covering a few motorcycle related topics.



This is the original key that came new with the 1999 Triumph Legend.

This is the Zadi Q637 ignition lock on the 1999 Triumph Legend that I did an article on in the July 2000 issue. Since then I have seen this same lock on new Aprilia and Moto Guzzi motorcycles that are being marketed in the USA. At the time of the article there were no aftermarket key blanks available in the USA and the code series was unknown. This has changed.



All 4 of these blanks will operate the lock(s) on the new Triumph, Aprilia, and Moto Guzzi motorcycles. From left to right are Silca ZD22RBP, Silca ZD16RP, a Triumph blank bought from a dealer, and Silca ZD23RCP. I was concerned about the short necks on the ZD22RBP and ZD23RCP so I talked a dealer into giving me the code to one of his new Triumph motorcycles. I cut a key by code on the ZD22RBP and it worked perfectly. The original Triumph key, the ZD16RP, and the ZD22RBP have the same milling whereas the Triumph blank and the ZD23RCP have a groove that is angled out wider on one side. An interesting fact is that the ZD23RCP is also available in Europe as the ZD23RT5, a transponder blank. Transponders are being used on some European motorcycles and it is just a matter of time before they come to the USA. The ZD16RP, ZD22RBP, and ZD23RCP are available from Blue Dog Keys (1-888-ODDBLANKS) at the time this article is being written. They may be available from other suppliers by the time you read this.

Codes: 8001-9554

Blank: Silca ZD16RP,
ZD22RBP,
ZD23RCP

Spacing: 1=.146,
2=.256,
3=.366,
4=.476,
5=.587,
6=.697

Depths: 1=.301,
2=.276,
3=.250,
4=.224



This is the Kawasaki KM-8 ignition lock that uses the new key blank that I did an article on in the

August 2000 issue. At the time of the article there were no aftermarket blanks available in the USA. This has changed.



From left to right are the modified X103, Silca KW16CP, and a Kawasaki blank bought from the dealer. The KW16CP is available from Blue Dog Keys at the time this article is being written. It may be available from other suppliers by the time you read this.

Codes: Z5001-Z6000

Blank: Silca
KW16CP

Spacing: 1=.098,
2=.197,
3=.295,
4=.393,
5=.492,
6=.591

Depths: 1=.258,
2=.238,
3=.218,
4=.199

Card Number:
CMC50

ITL Number: 259

Curtis: KA-1 cam &
KA-1A carriage

TNL's Guide to Transponders

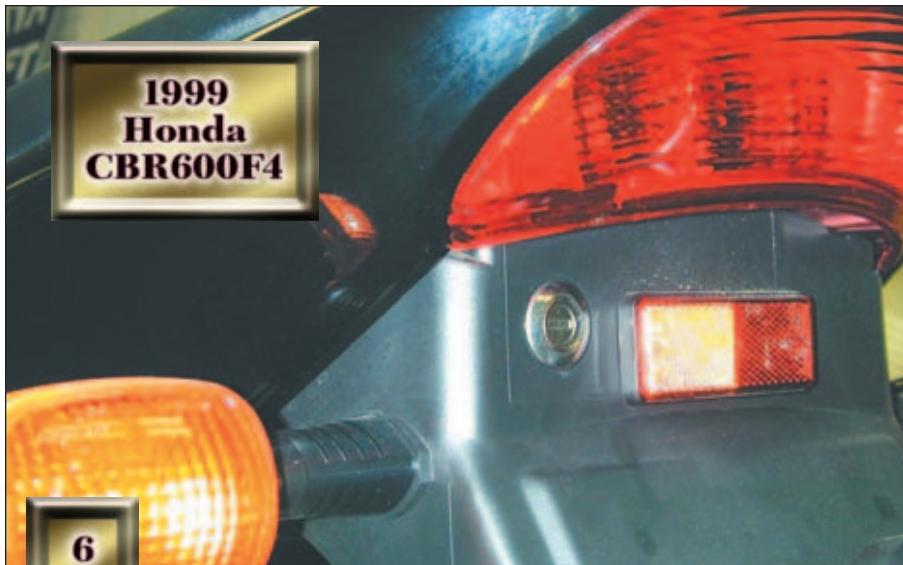
The National Locksmith's®

Guide to Transponders...

by Michael Hyde



For Professional Locksmith Use Only.



I did an article on a 1999 CBR600F4 in the September 2000 issue. That bike did not have a seat lock due to a custom rear fender so I included this photo of the seat lock on another motorcycle. I have since made a key to a 2000 CBR600F4 that did have a seat lock. I used the seat lock to make the key so I could update the previous article. I said in the previous article; "I have heard that the lock contains 5 wafer tumblers in spaces 4 through 8 and there is no code on the lock." It turns out I was right about there being no code on the lock. However, I was wrong about the wafer tumbler spacing. The lock contains wafers in spaces 2 through 6.

Over 350 pages in a handy binder to accept updates as needed.

CLICK HERE TO LEARN MORE



#TS - 2001



This bike had been wrecked and the plastic bodywork was removed so I am not able to show how the rear plastic and taillight lens was removed. The lock is secured to the rear fender by an automotive style clip. The tailpiece pulls a cable to unlatch the seat. Pull the clip up to remove it. Push the end of the cable housing forward and pop it out of its holder.



8

The seat

release cable can be moved around in the tailpiece until it can be removed through a slot. Then the lock can be pulled out and removed.



There is a roll pin holding the tailpiece on that has to be removed.



How To Create Master Key Systems

Never has there been a more concise, easier to understand program to teach Master Keying.

CLICK HERE TO LEARN MORE

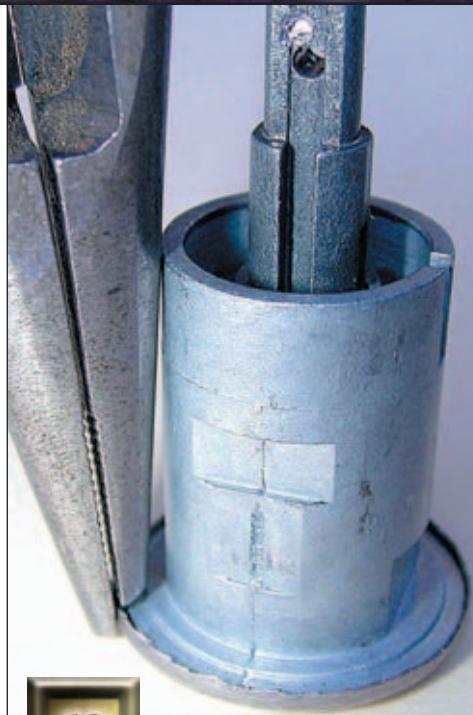
#HT - CMK1





10

Put a piece of wire into the roll pin to keep it from collapsing. Then drill a small hole next to the roll pin. Now a nail set or similar tool can be used to pry the roll pin out.



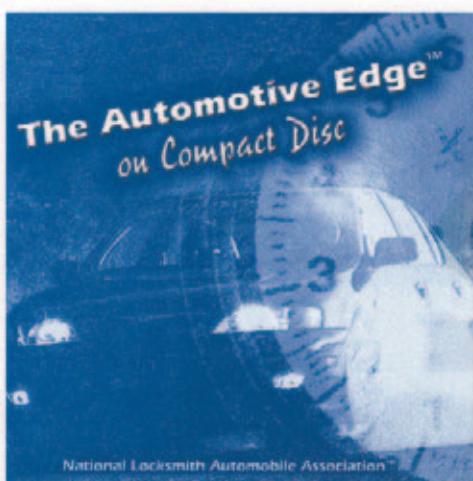
12

The face cap has to be removed. This cap is very easy to remove and replace without damage. I use a pair of spring-retumed needle nose pliers with one side ground 1/16 inch shorter and slightly pointed to pry up the edge of the cap. You only need to pry it up about 2/3 the way around to slide the cap off.



11

Once the roll pin is removed, the tailpiece and plastic spacer can be removed from the back of the lock. The return spring also needs to be removed from inside the back of the cylinder.



AutoEdge

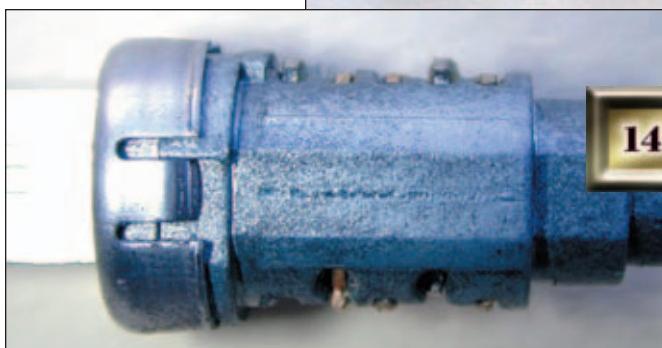
This CD contains over 1,000 pages of automotive locksmith service.

CLICK HERE TO LEARN MORE

#AE - CD



The face cap, plug, and return spring have been removed from the lock cylinder.



An X265 blank inserted into the plug shows the cuts are 21121. These cuts are in spaces 2-6. A search using key code software revealed there are only four codes that use those cuts in

those spaces. L68-12112122; L69-12112123; L70-12112132; L71-12112133. I knew from my previous article that the gas cap contained tumblers in spaces 4-8 so I used an otoscope to read the tumblers in spaces 7 and 8 in the gas cap. The #2 tumblers are silver in color while the #1 tumblers are bronze in color. The #3 tumblers are also bronze in color and there is a big difference in the heights of the #1 and #3 tumblers, so the tumblers are easy to read. The last two tumblers read 32 so the code turned out to be L70. This saved me from progressing all four codes. Notice that the first space in all the codes is a #1 cut. This is true of the entire code series. Since a #1 cut is no cut, you really don't have to be concerned with that space. So the gas cap containing 4-8 and the seat lock containing 2-6 will give you all the cuts you need to work the ignition lock, which contains all 8 tumblers. In the future I will either obtain the code from the ignition lock as shown in my previous article or read the wafers in the gas cap and seat locks to originate a key to this type motorcycle.

Codes: J,K,L,M,N,P,Q,R,S,T00-99, U00-U39

Blank: Ilco X265 (HD109), Curtis HD109, Silca HON63FP

Spacing: 1=.098, 2=.197, 3=.295, 4=.394, 5=.492, 6=.591, 7=.689, 8=.787

Depths: 1=.276, 2=.244, 3=.213

Card Number: CF73

ITL Number: 211

Curtis: HD-13 cam & HD-13A carriage

Tumbler Locations:

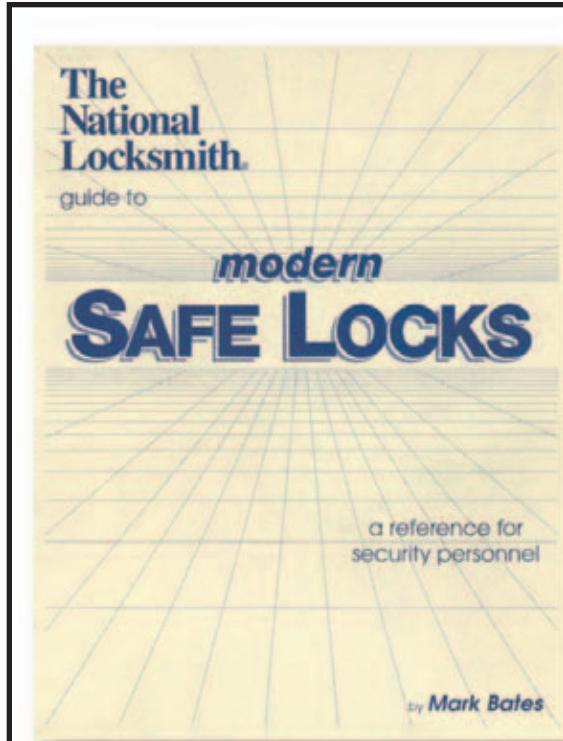
1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

Ignition	X	X	X	X	X	X	X
-----------------	---	---	---	---	---	---	---

Gas Cap	X	X	X	X	X		
----------------	---	---	---	---	---	--	--

Seat	X	X	X	X	X		
-------------	---	---	---	---	---	--	--

TNL



Modern Safe Locks

You always wanted to make
money servicing safes?

[CLICK HERE TO LEARN MORE](#)

#MSL - 1

— TECHNITIPS —

2000

Year End Winners

Grand Prize

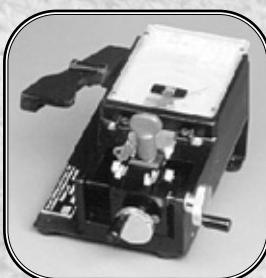
Silca Bravo Duplicator



Terry Heinricks from British Columbia, for his tip on making a VATS interrogator.

1st Prize

HPC's 1200PCH Punch Machine



David Craig from Illinois, for his tip on opening an Infinity trunk lock.

2nd Prize

Mas Hamilton's PowerLever 2000



Mike Buckley from California, for his tip on progressioning Ford 8-cuts.

3rd Prize

Curtis 2200 Duplicator



Larry Schlemmer, CRL from Arizona for his tip on opening Supra Key boxes.

4th Prize

SDC Magnetic Lock, Keypad and Exit Switch



Lee Whiteford from California, for his tip on opening a stamp machine.

5th Prize

Securitron 12-Volt Unlatch Plug in Trans & Touchpad



Sam Cain from North Carolina, for his tip on tool storage.

6th Prize

LaGard "SmartGard"



Bill Wessel from California, for his tip on opening an inner safe door.

7th Prize

Detex Advantex



Leo Koulogianes from Tennessee, for his 10-cut try-out key chart.

8th Prize

Arrow Exit Device and Mounting Kit



Ellis Gibbs from North Carolina for his tip on an alternative power source for a key machine.

9th Prize

\$500 in BWD Products



Scott Standridge from Arkansas, for his tip on generating a key for GM 10-cuts.

10th Prize

\$500 in ASP Auto Locks



Paul A. Keen Jr., CPL from Pennsylvania for his tip on opening a dead Kwikset latch.

11th Prize

\$500 in Strattec Auto Products



Ron Pearly from Missouri, for his tip for a plastic facecap removal tool.



12th Prize
Tech-Train "Jiffy Jack"



David T. Walker from Indiana, for his tip on making a tool for removing mortise cylinders.

13th Prize
Sargent & Greenleaf 6120 Electronic Safe Lock



William C. Murray from Massachusetts, for his tip on making an employee lock-up key.

14th Prize
High Tech Tools 2000 Pro Set



Pete Gamble from North Carolina, for his tip on repairing a dogging device in a panic bar.

15th Prize
Slide Lock's Master "Z" Tool Set



James McKurey from Texas, for his tip on making a guide for hand filing keys.

16th Prize
ESP Products Sampler



Jay H. Dye from California, for his door holding tip.

17th Prize
Major Manufacturing's HIT-111 Drill Guide



Fred Spencer from Pennsylvania, for his tip on a MIWA Key Extension.

18th Prize
Abus Padlock's Marine Padlock Display



Steven Clarke from Canada, for his tip on removing a Schlage interchangeable cores from a Unican 1000.

19th Prize
Mark Bates Associates Falle Pick Set



Edward Dec, CRL from the U.S. Virgin Islands, for his tip on pulling interchangeable cores.

20th Prize
Baxter JV-1 & JV-5 Code Books



Judy Baxter from California, for her Ultimate Key Chart for master keying.

21st Prize
Sieveking Products Squeeze Play



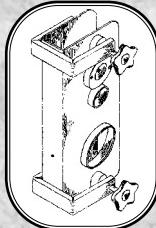
Charley Ward from New York, for his tip on Schlage lever repair.

22nd Prize
Rodann's RV 500 Annunciator System



Jess Tom from Iowa, for his tip on stabilizing rim cylinders.

23rd Prize
A-1 Security Manufacturing Installation Jig



Al Bullard from Arizona, for his hinge shim tip.

24th Prize
Keedex Sampler



Sam Cain from North Carolina, for his plug holder trick.

25th Prize
Framon Impressioning Handle



Marc Grizzard from South Carolina, for his tip on picking a high-security VW cylinder.

26th Prize
Gator Tool Multi-Purpose Facecap Tool



Ted Swirsky from New Jersey, for his tip on making deadbolt drill guides.

27th Prize
The 15 Minute Safe Opening Technique Book

J. F. Nowaski from Michigan, for his lug door handle repair trick.
by Jake Jakubowski



BWD
KWIKIT
WINNER:
**Chrysler
Trunk**

Lock

Many older Chrysler vehicles use a trunk lock, which is retained by a large (11/16") nut.

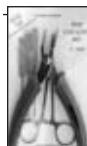
These locks, and especially the nuts, seem to be prone to corrosion and fail on a pretty regular basis. Often the failure is beyond repair and replacement is called for. Replacement (and sometimes repair) means removal of the old lock.

Frequently, again due to the corroded nature of the retaining nut as well as its location (deeply recessed in the body panel), this nut can cause problems trying to remove it. I would use a screwdriver and hammer and simply tap the nut to loosen it. However, with heavy corrosion the nut will not turn.

Instead of tapping this nut loose, which is what I use to do (and thereby endangering the condition of a usually rusty tailgate) try this. Go to your local hardware store or plumbing shop and purchase a set of "plumbers socket wrenches" used to remove recessed nuts on shower fixtures. There are five wrenches to the set and the cost is under ten bucks. One of the wrenches in this set fits this nut perfectly, accommodates the long tailpiece and allows for easy, trouble-free and safe removal of the retaining nut.

Glen Starling
Florida

Editor's Note: Glen, I had an 11/16" socket welded to a piece of 3/4" pipe, 12" long. At the other end of the pipe I drilled a 3/8" hole so I could insert a screwdriver to act as a turning handle. It worked like a charm. I never thought about the plumber's wrenches and I carry a set of them in the truck for other odd-ball, deeply recessed nut like those on TAC-II cash dispensers!



**WEDGEKO KEY
EXTRACTOR WINNER:
Another Titan Trick**

I was reading the October issue of the magazine and noticed the tip from James Holzer on removing the

Here's a little tip for y'all...

While at a recent convention, I picked up a really neat screwdriver from Sieveking Products Co. (sievekingprodco@sievekingprodco.com) called a ratcheting screwdriver (Spec Tools model #PFS5400).

Like many locksmiths, I'm somewhat of a tool freak and when I saw this screwdriver, I had to have it. I want to tell you that it is probably turned out to be my all-time favorite screwdriver. When I go on a service call, it is in my front pocket. I keep it on the motor cover of my truck so it will be handy when I need it and I have threatened my wife, Christie, with divorce if she tries to take it in the house!

Not only does the tool have a ratchet action that makes driving or removing most screws easier, it has a great five-sided handle for easy gripping and handle storage for four different bits. However, you can use almost any 1/4" bit that you might have need of, and although the directions didn't recommend it, I have used sockets with an adapter occasionally.

To make this driver even more attractive, it has a handle that can be angled to give you a better grip and more turning leverage for those "tough to break loose" screws.

At any rate, my tip to you is this: I think this tool would make a great addition to anybody's toolbox... including yours.

You can see this nifty screwdriver on Bob's web site.

Check out the year-end prize winner's list! Next year this time you could be seeing your name there. Just write down that tip or trick you been meaning to send in and if I publish it, you'll get some neat stuff the month it runs and qualify for the 2001 year-end prize drawing.



by Jake
Jakubowski



Photograph 1.

Kwikset Titan lock cylinder. It's a neat tip, but here's the way I do it:

After using a regular key to turn the plug, insert a small wire or pick under the lock retainer pin. Then lift it up and hold it in place and the plug can be removed with a standard follower. (See photograph 1.)

Bill Chrisman



Virginia
**STRATTEC WINNER:
Broken Door
Handles**

A used car dealer brought a 1983 Plymouth Reliant to my shop. Neither door would open from the outside. After disassembling the two door panels, I found that they both had the same problem.

The handle "tabs" (where the linkage attached to the handle) had broken off on the inside of the door. After taking both handles off, I realized that they were designed to fit either door. So I popped the plastic clip off each handle and replaced it on the other end of the handle and switched the handles on the doors. That is, I used the right handle for the left door, etc.

Since each handle is identical and contains two holes, they can be handed for either right hand or left hand operation.

By switching them, the broken side of the handle is neutralized. The latch rod is then connected to the side of the handle that was not broken. I haven't encountered this problem before and given the scarcity of Plymouth Reliants in today's car market, I probably will not see another one again. However, I think that on many of the 80's Chrysler products that had the lift-up handles, this might be a fairly common problem.

Gene Thompson



Louisiana

HPC WINNER: Door Holder

After trying with wedges, my foot, screwdrivers and miscellaneous materials to wedge a door so I could work on both sides while it was partially opened, I developed the door holder you see in illustration A.

First I bought a medium sized C-clamp at the local hardware store and cut off the bottom end of the clamp. I removed the screw and foot from the clamp, sawed the clamp in half and reinstalled the screw and foot so that the foot stuck out of the top of the C-clamp.

Then I found a piece of 1/4" channel iron (1/4" x 4" x 8" x12") and had the C-clamp welded to the channel iron as seen in the illustration.

Next, I made a large wooden wedge to take up the excess space inside the channel iron. Finally, I glued a thin piece of rubber to the bottom of the channel iron and the foot of the modified C-clamp to keep the holder from slipping.

To use the door holder, I open the door to the position I want to keep it, slide the door holder under the door, insert the wedge, and turn the screw down until it is snug against the floor or other surface (sidewalk, walkway, blacktop, wood floor, etc.)

The depth of the channel iron allows me to use the door holder on sloped walks, ramps and some steps. The modified C-clamp along with the rubber glued to the bottom of the clamp and channel, keep the holder from slipping even on highly polished floors.

Now I can hold nearly any door, in any degree of opening that I need and work on each side without the door moving on me.

Dan Corner
Pennsylvania



SARGENT & GREENLEAF WINNER: **3330 Modification**

If you own an HPC 3333 (Trace-A-Key) key machine and do safe work, the 3333 can be converted to a slotter-type machine to copy safe deposit box keys. More importantly it can be used to duplicate the longer S&G keys (Part # 6804-019).

On a regular slotter, these keys are

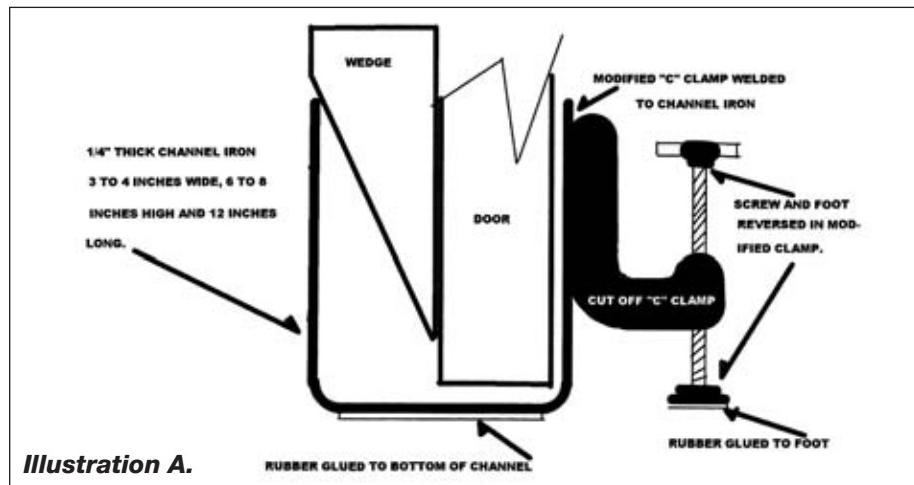


Illustration A.

Sieveking Auto Key Guide



The Sieveking Auto Key Guide lists over 2,600 automotive and motorcycle keyways, covering makes from Acura to Zundapp, and listing fourteen popular key manufacturer numbers.

CLICK HERE TO LEARN MORE

#AK - 1



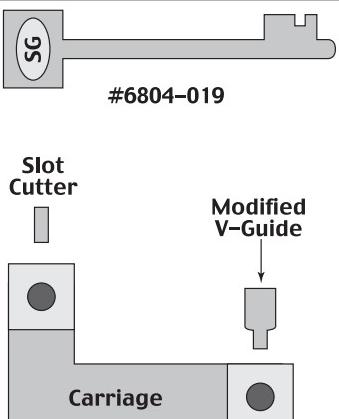


Illustration B.

unusually difficult to copy because of their length (approximately 5-1/2"). It's difficult to find a machine with enough travel in the carriage for coping. The HPC 3333 works because the jaws are offset allowing the original key to extend past the copy key jaw. (*See illustration B.*)

You will need to place a spacer washer approximately .100 thick behind a slotter cutter thin enough to make the cuts without wiping out any adjacent cuts. To avoid the possibility of injury to the operator, remove the heavy carriage return spring.

You have to modify or replace the "V" shaped tracing guide to fit between the cuts in the original key. We milled ours down to .060. We had copied twenty keys with our modified machine without a miscut and our customer had their keys without waiting for factory cut keys.

*Don Brown, CML, CPS
California*



**A-1 SECURITY
PRODUCTS WINNER:
*Schlage Thumb Turn
Repair***

Recently, I returned to a job where I had previously installed five Schlage B160, single cylinder deadbolts. I found that four of the five locks had broken thumb-turns. The shaft on the four thumb-turns has spilt and would not allow the thumb turn to activate the bolt.

At any rate, I did not have any spare thumb turn knobs, and needed to find an immediate solution to my customer's problem. I removed all thumb turns knobs and took them to my shop where I could work on them.

The first thing I did was measure the outside diameter of the shaft of the unbroken thumb-turn and looked around for something that would have the same inside diameter as the outside diameter of the shaft (.3650, or not quite 3/8"). I found that if I used a 3/8" I.D. copper coupling and ran a 3/8" drill bit carefully down through the coupling, I had a band that would reinforce the shafts of the thumb-turns.

The first thing I did was use Crazy Glue to glue the broken pieces of the shaft back together. I let the glue dry and using a vise and some cardboard (to keep from scaring the thumb turn handle) I press fit the couplings over the shaft of the thumb-turns.

Before I press fit the couplings on, I put a few drops of Crazy Glue in each coupling. When I press fit the coupling to the shaft in the vise, I would let the unit set there for a few minutes until the Crazy glue dried.

The only thing left to do was to file the coupling down to the proper length and take the thumb turns back to the customer and reinstall them on the doors.

*James Whitfield
New York*



**ILCO KEY BLANKS
WINNER:
*Retainer Cap for
Small Pin Locks***

The National Locksmith.

Flat Rate Manual For Locksmiths

Safe Work • Car Opening • Key Cutting • Rekeying • Installations •
 Domestic Autos • Code Keys • Duplicate Keys • Masterkey Systems
 • Conversions • Key-In-Knob Locksets • Imported Autos • Lockouts •
 Safe Work • Car Opening • Key Cutting • Rekeying • Installations •
 Domestic Autos • Code Keys • Duplicate Keys • Masterkey Systems
 • Conversions • Key-In-Knob Locksets • Imported Autos • Lockouts •
 Safe Work • Car Opening • Key Cutting • Rekeying • Installations •
 Domestic Autos • Code Keys • Duplicate Keys • Masterkey Systems
 • Conversions • Key-In-Knob Locksets • Imported Autos • Lockouts •
 Safe Work • Car Opening • Key Cutting • Rekeying • Installations •
 Domestic Autos • Code Keys • Duplicate Keys • Masterkey Systems

By Janice C. Paine, CPL

Now you can easily "Price for Profit!"

CLICK HERE TO LEARN MORE

#FRM - 1

When re keying small, pin tumbler cabinet lock cylinders such as those made by National Lock and Corbin Cabinet Lock, the spring cap covers can get bent so badly that they are no longer usable.

When original replacement cap covers by National or Corbin are not available, I use Falcon interchangeable core cap covers and modify them as follows:

1. Cut them to the proper length.
2. Use a pair of pliers to narrow the angle of the "V" to fit into cover slot.
3. Peen the cover into the slot.

Since the cover is made of extremely thin brass, it molds right into the slot and stays firmly in place.

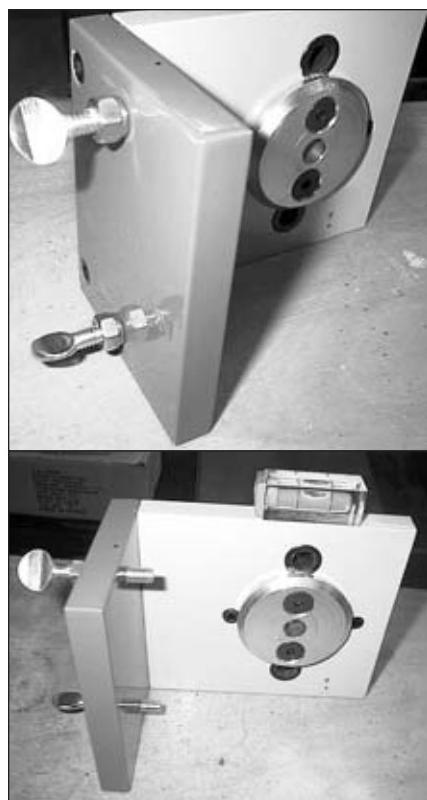
*Jay Christie,
North Carolina*



**KEEDEX WINNER:
Hit-13 Modification to
fit 2-3/8" Backset**

I recently purchased a Major Manufacturing HIT-13 jig to install over 200 lever sets on a local housing project. After surveying the job I noticed that the locks I was replacing were bored with a 2-3/8" backset. The HIT-13 was designed for 2-3/4" backset installations. This is what I did:

I scribed a centerline down the middle of the faceplate. Next, I center punched, drilled and tapped two, 1/4-



Photograph 2.

20, 2" thumbscrews into the faceplate. (*See photograph 2.*) Next, I acquired two nylon nuts, which I threaded onto the thumbscrews, which serve as a positive stop for the thumbscrew.

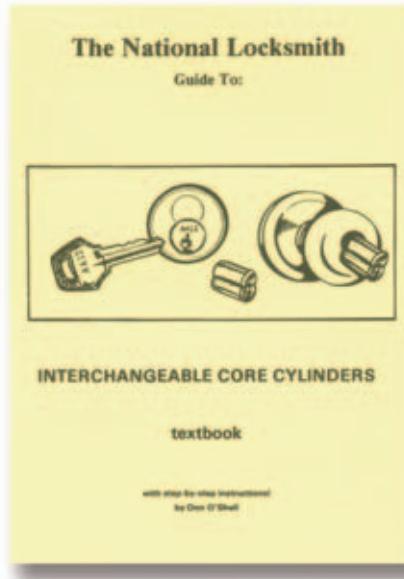
When the jig is mounted on the door with a 2-3/8" back set, simply turn the thumb-screws in towards the door until they stop. Tighten the nylon nuts up to the faceplate of the jig. With the jig now square on the door, you now have a positive stops for a 2-3/8" set up. The nylon nuts provide a positive stop. Once this dimension is set I simply punched the threads to keep the nut from moving, thus

insuring my 2-3/8" dimension would always be correct.

When using the jig for a 2-3/4" application, you simply unscrew the thumbscrews until they clear the inside plate of the jig. The screws stay in place so they cannot be lost.

Taking it one step further, I purchased two, 1" clear levels, which I glued to the top of the jig to insure a level installation. (*See photograph 2.*) This procedure worked excellently. We currently are modifying all of the Major Manufacturing jigs in our shop to meet this specification.

Interchangeable Core Cylinders



Covers all this...

- Best/Falcon/Arrow/Eagle/(A2) • Best A3
- Best A4 • Corbin X Removable Core
 - Corbin Z Removable Core
 - Russwin Removable Core
- Emhart System 70 Removable Core
- Sargent Removable Core • Schlage, Yale, Lockwood • Medeco Removable Core

CLICK HERE TO LEARN MORE



This simple modification to an already excellent product allowed me to install over 200 lever sets quickly and efficiently. I hope this tip can help out other locksmiths with similar installations.

*John G. Sabilia
Connecticut*

Editor's Note: John, What you did is quite a thorough modification to accomplish the end you were looking for and with the number of doors involved may have been well worth the effort. However, for smaller numbers of doors, I find that a 3/8" drill bit (or any 3/8" thick material inserted between the jig and the latch edge of the door will handily convert the jig from a 2-3/4" backset to a 2-3/8" backset.



**TECH TRAIN TRAINING
VIDEO WINNER:
*Cold Weather Lock
Defroster***

Here's a trick for defrosting frozen locks on cars, exterior doors and storefronts that does not require any electricity, flame, or heat.

First, in cold weather, I use a deicing windshield washer fluid in my van's windshield washer. I usually have a partially full jug of the fluid in the truck during the winter. Secondly, I purchased a small meat baster from the Dollar Store.

When I encounter a frozen lock, I simply draw a little of the deicer fluid

into the baster and squirt it into the lock. I keep a rag handy to wipe off the excess and it deices the lock almost immediately.

It's fast, cheap, simple and works like a charm. If I don't happen to have any deicer in a jug, I just dip the baster into my windshield washer reservoir.

*Charlie Huggins
Montana*



**SIEVEKING
PRODUCTS GM E-Z
WHEEL PULLER
WINNER:
*GM Retainer
Problem***

The tumbler retainers on General Motor's side-bar plugs always seem to cause problems by popping off an OEM lock. To avoid this problem, I put the cylinder in a staking fixture to hold it securely. Next, I use an automatic center punch and place the tip just to the side of where the retainer enters the lock body and apply downward pressure until the automatic center punch activates. (See illustration C).

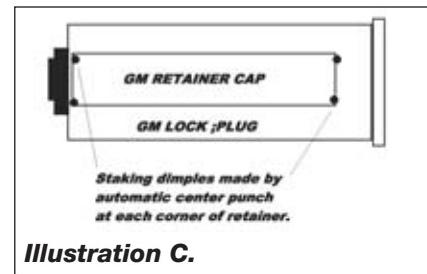


Illustration C.

This procedure results in a near perfect dimple every time and a securely staked retainer.

*Jim Madden
Utah*

**MAJOR
MANUFACTURING
PRODUCTS
WINNER:
*Profile Clip Fix***

I was called to rekey a Yale profile cylinder in an Atrium style lock that you find on French doors. It was a single cylinder type with a thumb-turn on the inside.

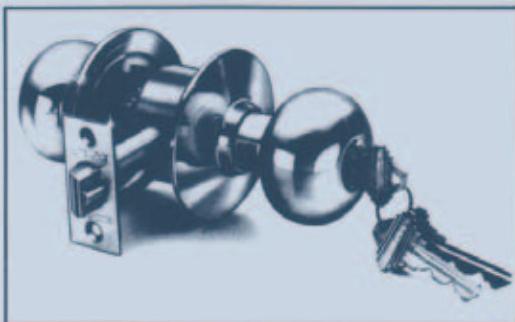
To disassemble this lock, I had to pry off two "C" clip retainers that hold the locking cam in the center of the lock. The clips were difficult to remove and while removing them, I managed to distort the clips. In fact, I managed to twist them far enough out of shape that they were unusable.

Not having an assortment of "C" clips available, I decided to try to

Lock Repair Manual

Lock Repair Manual

This handy reference book features information on repair and installation of various makes and styles of locks.



Published by:

**The
National
Locksmith**

CLICK HERE TO LEARN MORE

#LRM - 1

remake the original "C" clips so they were usable. About the time I started to work on the first one, I thought about my Kwikset pinning kit in my toolbox. I knew that I had both "C" and "E" clips in that kit.

After recombining the cylinder, I tried a Kwikset "C" clip and it slipped right into the groove. I used another one for the other side and left the job knowing that the cylinder was secure.

Mark Stratton
Montana

Editor's Note: Mark, funny you should mention Yale and Kwikset in the same breath! Just last week I was rekeying an off shore rim-cylinder with a Y-1 keyway and when I pried the clip off it shattered! I went to my Kwikset kit and found the KW "C" clip fit the retainer groove, but was too thin to keep the plug from moving which would trap the key. However, I added a second clip and the cylinder worked like a charm. I generally find my spare clips at my local hardware store, which has a fairly wide assortment.



**SLIDELOCK'S "Z" TOOL
OPENING SET WINNER:
*Screw Tip***

There seems to be more and more imported screws showing up in our hardware packages. When you try to install them, the heads strip out, or the threads spin off, or the darned things even bend on you.

Sometimes buying screws at the hardware store is not an option, because they are also using a lot of imports.

To lessen the problems that I have with these inexpensive screws, I have begun drilling pilot holes for ALL my screw installations. Even strike plates. It saves me time in the long run, especially when I am using a power driver to set the screws.

*J. Grimes Wyatt,
Indiana*

Editor's Note: Grimes, thanks for the tip. I have experienced the same thing. Major Manufacturing sells Self-Centering Drill Guides, which are excellent for drilling pilot holes for screws and helping to eliminate the problem you have pointed out.



**THE SIEVEKING AUTO
KEY GUIDE WINNER:
*Safe Installation Tip***

If you are installing an in-floor safe and have broken through the concrete, dig the hole

deep enough to accommodate the box that the safe came in, with a little room to spare. If the box will fit in the hole, then the safe will also.

Just a short tip to save some installation time.

Jerry Hessler
North Carolina



**JET KEY BLANKS
WINNER:
*Key Ring Turning
Tool***

I always carry an uncut KW1, SC1, and Y1 blank on my key ring. They come in handy as turning tools when removing and installing mortise cylinders, for steadyng rim cylinders during installation and checking an unrecognizable keyway.

By carrying them on my key ring, I

always have them with me and don't have to rummage through my toolbox to find the one I need.

*Johnny Wilkins
Georgia*



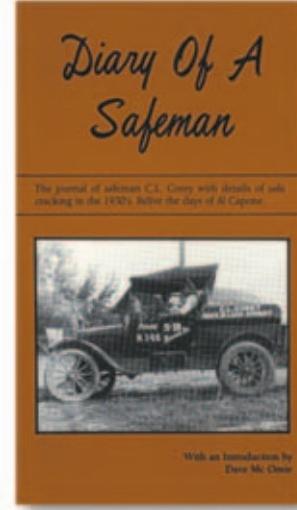
**HIGH TECH
TOOLS WINNER:
*Pinning Blocks***

When I started locksmithing thirty-five years ago, I had to make many of the tools that I needed. I still have and use a lot of those same tools.

The following photograph shows you how I made a pinning block from an old padlock (you can make them from any brand specific lock cylinder).

First I cut the body of the lock so that most of the cylinder was left intact. Next, I smoothed the edges of the cut body to remove any burrs.

Diary Of A Safeman



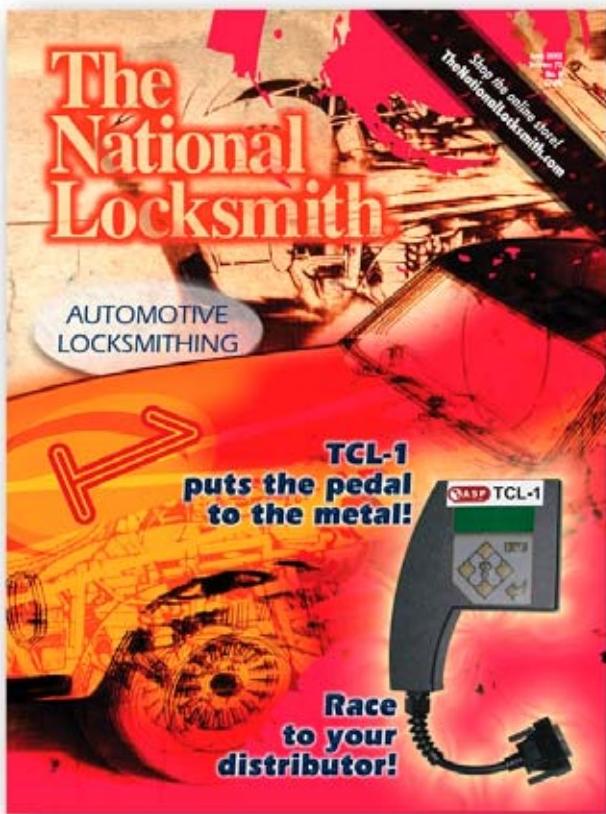
This book is a real gem...the private safe diary of old time safecracker C.L. Corey.

CLICK HERE TO LEARN MORE

#DIARY

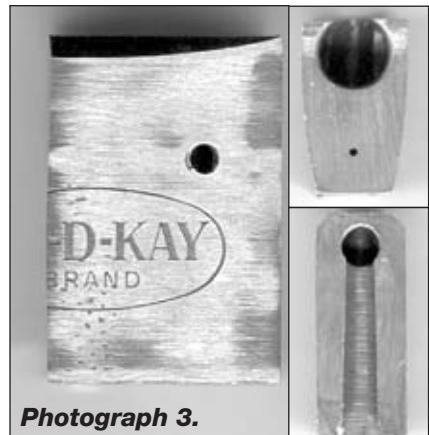


TNL Subscriptions



This is THE source for automotive technology, safe opening techniques, electronic security and much, much more.

[CLICK HERE TO LEARN MORE](#)



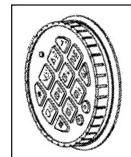
Photograph 3.

What you do is pin the plug, insert it in the pinning block and check to make sure it turns smoothly, without any glitches or hang-ups. (See photograph 3.)

I have made many of these over the years and my employees use them everyday.

*Ben Marshall
Florida*

**LAGARD WINNER:
Freezing Folger
Adams Fix**



I am a locksmith for a correctional institution and have run into several problems with exterior Folger Adams and Southern Steel locks.

In the winter, with snow, rain, condensation and freezing rain, the locks seize. I can't do anything about Mother Nature, but I do two things to stop the locks from retaining the moisture that freezes.

First, I remove the lock and drill two 1/4" holes in the bottom of the lock case, one on each side. Even if the lock does freeze, when you heat it, the water will drain out preventing re-freezing.

Secondly, I use strips of heavy rubber welder's curtain to shield the lock face and keyway from the elements. This material remains pliable in cold weather and so far, has lasted for five years. I use a strip of metal across the top secured with pop rivets to hold the flap over the keyhole. The welder's rubber is pliable enough to lift out of the way for the key, but heavy enough to keep the wind from blowing it and exposing the keyway to the elements.

*Wayne Stuart
North Dakota*



SELLING SECURITY

by Ted Tate

Empty Buildings Mean Profits

I always considered everybody in our company a sales person. That included secretaries, installers, service people and management people. When people in your company have contact with the public, they create an impression. I expected my people to create a positive one and to be aware of and report any sales opportunities. We paid cash bonuses if their alertness paid off in a sale. (I'll discuss that program in another column.) One such program we utilized is called, 'The Empty Building Program.'

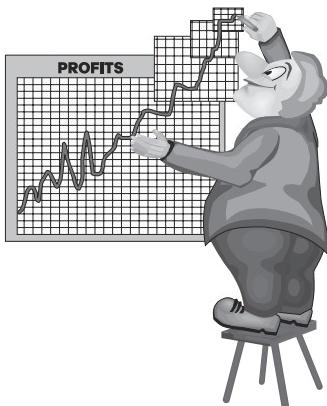
I had stickers, 4-inches by 4-inches, printed on weather resistant paper stock. At the top were the words "For Locksmith Service" in big bold letters. Below, our phone number, also bold, and our company name along with security services available. Each employee had an inexpensive, pocket style rubber name stamp. The stickers now became a business card.

Every employee was expected to place these stickers on any unoccupied building. Installers used them when we were removing equipment from a home or business. The sales people would leave one at a prospects business even if no sale were made. They'd say, "Even if you don't feel the need now, you can't ever tell what the future brings. This way you'll always have our information available in case of an emergency."

Sales people also placed them on any unoccupied building in their territory. If they couldn't get inside, they would then place them on the front entrance door. I could tell if sales people were out selling by driving around their territory looking for stickers.

Good luck and good selling!

Ted Tate was in the alarm industry nearly eighteen years. He now presents in-house business training programs and is a nationally known trainer and author. For additional free selling tips visit his web site: www.trainingexpert.com 



**Take a tour
of the new AutoSmart
Advisor™ Software!**

WWW.AUTOSMARTADVISOR.COM

Sargent & Greenleaf

Then & Now

Whether it involves products, processes, concepts, or services, manufacturing in a free-enterprise system never sits still. It is constantly evolving. Lee Iacocca had a great line in his autobiography which stated that the free-enterprise system is strong "Not because it stands still, frozen in time, but because it has always adapted to changing realities." We are seeing a change in our realities. We are watching the dawning of the digital age in locksmithing. Right in front of us is new opportunity. The old lock concepts are dropping by the wayside and the new technology is taking its place.

It would be silly to think that new technology will mean things are going to be simple or easy. To the contrary! It means further education of new products and new tools to service them. It also means new sales and better profits in the placement of new materials and a better business atmosphere for growth. The locksmith will be forced into this new reality just as the manufacturers are forced into a new field of profit and endeavor. The product of invention, coupled with



by
**Donald B.
Dennis**

business competition and the ever-persistent public will be the entities forcing these issues. Whether we like it or not, change is necessary and to our chagrin, inevitable.

This past summer, I had a wonderful opportunity to visit the Sargent & Greenleaf (S&G) facility in Nicholasville, Kentucky. The tour was conducted the way the product would flow through its factory. I started in die-casting, screw and stamping machines, then on to buffing and deburring. The spindle-making machine was next. Once I observed how the individual parts were made, I then went through and visited the different assembly cells from electronic locks, to spindles being pressed into dials, and last but certainly not least, the final assembly of safe deposit and mechanical combination locks. I was impressed with how neat and orderly each department was organized to handle the high volume of work.

As I wandered through the facility's 122,000 square feet of offices and factory space, I could not help but pause and consider all of the people that have been involved in bringing S&G to this stage of its manufacturing life. Here is a



1. The Sargent & Greenleaf facility.



2. The die-cast areas with a pallet of Zamak ingots ready for the furnace.



3. Box of parts waiting for the cleaning process of removing the flashing and burrs.



4. A computer numerical control milling machine.



5. The spindle machine is the only one in the plant. It takes rolled brass stock and by the time it spills out the chute it has been straightened, cut to length, chamfered, splined, knurled, and threaded.

successful company with roots that extend back to the middle of the 1800's!

The Sargent & Greenleaf saga begins with James Sargent and his employer Yale & Greenleaf Company operating out of Shelburne Falls, Massachusetts. In 1857, James Sargent was a traveling salesman for Yale & Greenleaf. 1857 is when all of this began since it was the time when the James Sargent Lock Company was created. From 1857 to 1865, Mr. Sargent made several inventions; one was a lock with a key changeable combination feature, a Micrometer used in defeating combination locks, the Sargent Magnetic Bank Lock, and the Sargent Automatic Bank Lock. It was in 1865 that James Sargent and Colonel Halbert Greenleaf joined forces to form Sargent & Greenleaf. James Sargent lent his mechanical mind to the venture and Col. Halbert Greenleaf offered his financial capital and business expertise. Greenleaf was the brother-in-law of Linus Yale, Sr.

This budding company began its operations in Rochester, New York moving twice within Rochester between 1865 and 1869. While still in Rochester other factory buildings were erected in 1920. S&G had operations dealing with manufacturing during different times that involved Brooklyn, New York; Ontario, Canada; and Downey, California. It was not until 1974, under the guidance of Harry

Miller, that the current facility was built in Nicholasville. The Nicholasville factory was intended to house only the Safe Deposit Lock production but due to several operational issues it was decided to move the entire S&G operation to the site. All of the manufacturing remains to this day in Nicholasville, KY with the exception of a subsidiary in Lausanne, Switzerland that supports European and mid-Eastern markets. In 1981, the Miller family

How To Pick Tubular Locks



This software shows you every step of tubular lock picking in clear and simple detail.

CLICK HERE TO LEARN MORE



- 6. The factory floor plan facilitates a smooth flow from the manufacturing of parts, through the final assembly areas, and on to shipping. The clean systematic organization of the S&G factory speaks clearly of its efficiency.**



7. One of the many buildup and test terminal.

sold their interest in S&G with a holding company SGI (Security Group, Inc.) being formed.

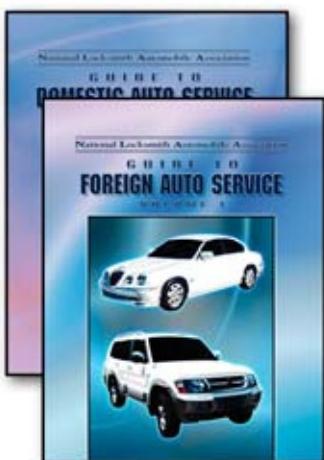
Earlier in this article I mentioned that we were in the dawning of the digital age. That's not entirely true. It may be dawning as the new mainstreaming of business being digital, but digital has really been with us since the early 1950's. S&G developed its first digital access control units as early as 1952. The early 1970's saw a great deal of

electronic digital products that included the Cyper lock, and the Code/Tronic®. It was not until 1993 that S&G began its production of the 6120 electronic safe lock products. Since 1993, the Comptronic® product line has become a reliable standard of the electronic safe lock industry. The 6120 electronic lock represents 60% of the S&G electronic products shipped in 1999.

I brought up the 6120 electronic lock since most locksmiths entering the electronic age will be confronted with it. In fact many locksmiths will educate themselves in S&G products no further than possibly a 6120 with a time delay indicator (6215) attached to it. There are, however, many locksmithing businesses that will take on electronic concepts with great enthusiasm and learn the intricacies of integrating many devices into a single system. This, in fact, is the approach that S&G is undertaking both currently and in the next decade. They currently have a system of devices that allow the integration of safes, alarm system shunting, duress alarms, video cameras, and access control items into a single monitoring concept. You can tell if a lock's bolt is in the locked position or if it is in the open position.

NLAA Guide to Domestic Auto Service

NLAA Guide to Foreign Auto Service



You get car opening, lock removal and service, column service, key and code series information, and many views of the doors, panels and locks.

CLICK HERE TO LEARN MORE



This integration can also allow a camera to be activated to survey the activity as soon as a lock's bolt is retracted into an open position. The entire system can be monitored creating safety as well as security. This solves a very important concern of being able to have an alarm system monitored from a distance, yet still be able to integrate the system of safe locks and devices at the local business level for daily activities.

Electronic locks can eliminate, depending upon the model, the need to hand out the same combination to everyone. Businesses are hiring a lot of part-time workers and some of these workers still need to access sensitive areas and safes. Management can now assign employees their own combination for a particular lock or set of locks and program those locks to only operate on certain days when that employee is working. The system also allows for the integration on methods of accountability. It will monitor what employee goes where and when they do it!

Being that it is human nature to take the easiest means to complete a task, we find it a constant practice of calling a safe locked by closing a safe's door and partially turning the dial to engage the handle's cam plate. This is called "day-locking". Electronic locks of the Comptronic® series require less than five seconds to open with the right combination and they will automatically lock when the door is closed and latched. This eliminates this very common and dangerous practice of "day-locking" the safe's door.

With the above features being offered in the Comptronic® series, a customer's concerns of reducing internal theft, managing their security, and deterring the threat of robbery are all addressed in a direct and effective way. S&G is proving that they not only have a distinguished history, but that they are addressing the security needs of today's market through state-of-the-art electronics.

The following is an interview I had with S&G representatives:

Dennis: Even to Alan Greenspan's amazement, the economy has been booming beyond belief for many years. Has S&G's business experienced the same boom?

S&G: We have experienced very good business growth in the past several years. As the economy continues to stay healthy, this fuels growth in sectors where safe sales remain strong, which is good for S&G.

Safe Opening Volumes 1, 2, 5



These are the classic safe books you will need to open most any safe easily and professionally.

- Volume 1 - Modern Safes
- Volume 2 - Modern Safes
- Volume 5 - Very Recent Safes

[CLICK HERE TO LEARN MORE](#)





8. The test lab checks out the R&D materials and as well as lock cycle requirements for UL regulations.



9. This is the test and assembly area for electronic locks.



10. The shipping area.

Dennis: Is it economical, in today's manufacturing atmosphere, for S&G to do all of its own manufacturing? If not, what makes it a good idea to outsource for parts other than raw materials?

S&G: In today's business environment we strive to do as much of our own manufacturing as feasible. As we moved into electronic products it was not feasible for us to manufacturer electronics,

so we found suppliers for the electronic components we needed, and we assemble here so we can maintain our high level of quality.

Dennis: How long has S&G had distributors overseas? How big a part do they play in S&G's overall picture?

S&G: Our international distributor and representative network was established in the 1970s. International sales represent about 40% of our overall business.

Dennis: What areas of growth and expansion do you see for S&G in the USA and overseas markets?

Continued on page 119

Dave McOmie on Gun Safes

Gun Safes

Need a drill point or relocker drill point on a gun safe?

CLICK HERE TO LEARN MORE

#GS - 1

Continued from page 116

S&G: We will continue to incorporate new technologies into our products. We want to offer the security professional products that can be integrated into an overall security system and provide the solutions and flexibility for better safe management. Electronic products will play an important role, as well as the Arm-A-Dor secure panic hardware product line to our future growth.

Dennis: The 1990's are being called the digital decade. S&G has even produced a product line of digital electronic safe locks. Where will the emphasis for S&G's digital business go from here?

S&G: It will continue to expand and become more sophisticated in the technology we use. Yet at the same time maintain security and ease of use for the employees who must interface with our products.

Dennis: Business forecasters seem to be indicating that for a high-tech business to prosper, the high-tech services need to be provided along with helping people face-to-face. Would this apply to a manufacturing concern such as S&G and if so how does "face-to-face" apply?

S&G: We agree and are looking into

ways we can provide the technical support required for our products. We are considering all the latest communication tools that are available today: telephone, cellular, fax, Internet, etc. to provide the quality service and security the customer expects and deserves, 24 hours a day, 7 days a week.

Dennis: A lot of electronic push-button locks are showing up in the market place. Is there a place in the residential and commercial door lock market for a stand-alone pushbutton knob lock or deadbolt produced by S&G?

S&G: Our business is producing quality high security locks, mechanical or electronic, for all types of security containers. We currently have a commercial door product, the Model 6140, that combines our existing electronic lock with a mechanical interface, and this is being used in a commercial door application.

Dennis: Is it just a matter of time before the electronic safe lock will eliminate the need for the mechanical lock?

S&G: Probably not in the near future, but say 20 to 25 years from now. The 1990's growth in safe sales have come from the home safes, gun safes, data and light business safes. All these

products have used the mechanical combination lock, as well as some electronics. We have experienced record shipments in mechanical locks in the past year, even though our electronic products grew too. We will probably see a mechanical decline when safe designs change coupled with lower electronic lock costs.

Dennis: How would you describe S&G's market place and who are your major competitors?

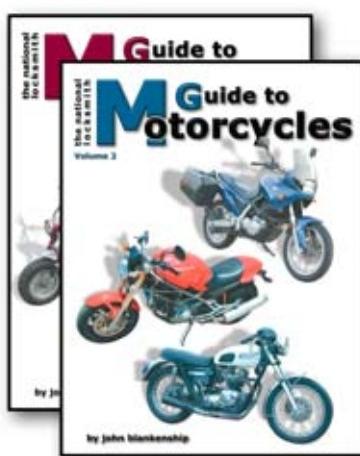
S&G: Being in business since 1857, we have become the world's leading supplier of security solutions for a wide variety of customers in all major markets - banking, commercial, and consumer. We've earned a solid reputation as the global leader in quality specialty security devices and offer the broadest product line in the industry.

Dennis: How would you define the goals for S&G for the next decade?

S&G: Through on-going, dedicated research and development, we are continually developing innovative security solutions - one third of our sales are from products that are less than five years old. We will continue our leadership role and develop the quality products needed for the security industry. **TNL**

Guide to Motorcycles

Vol. 1 & 2

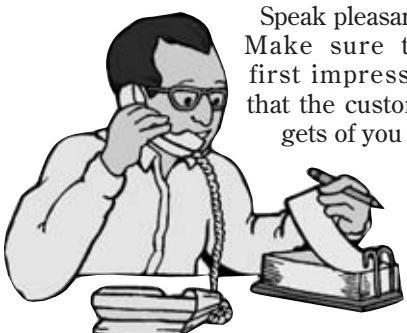


For years locksmiths have begged for a comprehensive service manual on motorcycles and its finally here!

[CLICK HERE TO LEARN MORE](#)



Correct dispatch procedures and protocol can protect you financially and physically. Over the years, I have had enough things happen, enough times, that I have modified my dispatch protocol and it has served me well. These are often hard lessons learned from a lifetime of serving the public. The following protocols are what I consider the minimum that a locksmith and/or dispatcher should do to ensure a smooth, orderly, safe and productive service call. It is important that everyone involved know what to do and why.



Speak pleasantly. Make sure that first impression that the customer gets of you and

your company is a good one. Literally smile before answering any phone call. No matter how bad or angry you feel, you cannot sound mad or angry while you are smiling. Thank the customer for calling. Give your name to personalize yourself to the customer. Then ask the customer for their business. Say something like "Thank you for calling. This is David. How may I help you?" You may have to practice a lot to get it down automatically and smoothly, but it is the one first thing that will implant professionalism and confidence in the mind of the caller. Be genuinely concerned. The customer will pick this up in your voice and it will reflect in the way that they react to you and the person doing the work for them. A bored, hurried, dispassionate, or gruff, "LOCKSMITH!" greeting doesn't cut it. Your voice will always speak volumes about you.

Always ask to talk to the owner of the house, or driver of the vehicle. Get their name and a statement verbally that they do want you to come out. Determine that they are indeed the authorized person to call you out and that they will accept financial responsibility for the work. Ask them if they are physically safe. By questioning them closely, determine the degree of emergency. This will help you determine the priority of this

call, particularly if you have two or more calls working at the same time. For instance, if their child is locked in the car and they are frantic, you may want to give it a top priority. If this is the case, stay calm, work to calm and keep them on the line until you get all the information you need.

If you let anyone else (third party for instance) call you out, the actual owner/driver can renege the charges because they didn't call you. By getting this statement from the actual owner/driver, you have established a true verbal contract. It is even better if you can record this



conversation. Recording selected or even all incoming calls, is not a great expense or effort anymore and can help you listen to those garbled instructions when necessary. It could be vital in proving your position in case of trouble.

If you must talk to a third party, explain to them that the person that requests the callout is the only one that you can hold liable, and explain the cost to that person. Usually the owner is magically available to talk to you at that point.

Always quote at least an estimated price and an accurate cushioned estimated time of arrival (ETA). Having them tell you now, is much better than arguing about the price that they didn't ask for later. Also, quoting a price is important in legal issues. If a police officer is later called to settle a matter, or if it winds up in court, this will be a critical question asked. It is one of the defining differences between "theft of services" and "a civil matter." It establishes that the person was aware of what they were getting

Dispatch Procedures & Lockout Protocol

*Some things that
can make you money
and save your life!*

by
C.D. Lipscomb, CML, CPS

Continued from page 120

into. Quoting a price, even an estimated price, usually defuses any potential problems.

Giving the customer as accurate a time of arrival as you can is only fair, and gives the customer a chance to back out if they want to, and keeps them from being angry at a technician who is getting there later than they were told. Never lie to the customer, saying, "we will be there in 10 minutes" when you know that it will be half an hour. If you find there will be an unexpected delay, then call them back. If they know you are coming and haven't forgotten them, they will usually wait.

Always explain to the caller that there is a charge for the trip, and that the charge will apply unless they cancel before you leave to come to their location. By calling it a "Trip Charge" both on the phone, and on the job ticket, you have clarified things to the customer and everyone else. If you refer to that charge as a "Service Call Charge" they can say that you have performed no service up to that point.

Settle the method of payment. Ask, "will you be paying by cash, check, or



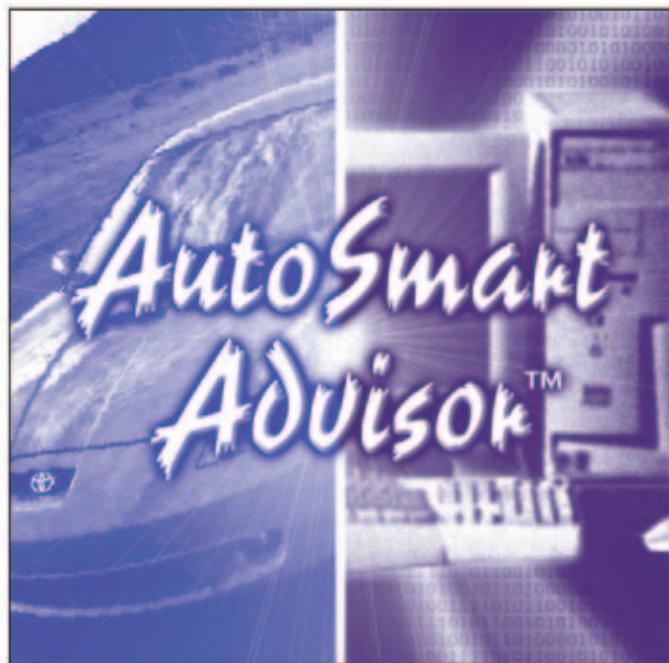
credit card?" This settles that question up front and avoids conflict later. If they have no money with them, terms can be better worked out now. Amazingly, there are people that don't think that they have to pay anything at all. There are those who think that because they called the police and the police referred them to you, that there should be no charge. There are those who think that you are obligated to extend credit to them. Now, you may, or may not want to extend credit, but this way you have a choice before being confronted with it onsite. When it comes to power, it is better for you to have it than the customer. It is easier to be in power while you still have something that they want.

On any call, get the time of call, the home address, driver's license number, and billing address of the caller, and remember this should be from the authorized, financially responsible person. A call that is over 20 minutes driving time away should

be secured with a credit card number if possible, even if they plan to pay by cash. It doesn't really matter what charge card it is. If they are willing to give a verifiable credit card number to you, they will most likely be there when you get there. If you have a suspicion or bad feeling about them, run the card before you send someone out and call them back if it doesn't clear. Don't just cancel them out because the card didn't clear. They may have another card, or maybe you wrote it down wrong. Bear in mind that nearly everyone you deal with is in some form of trauma, and may forget important information or be too excited to relate information properly. It is up to you to take charge of the situation and get what you need to complete the job. Your part in this drama is as important as any of the other participants.

Ask if they currently have anyone else working on the car, or if they have called another locksmith. If they answer yes to either of these questions, then have them secure the call with a credit card. There is no need to go head to head with another technician about who gets paid. It is

Continued on page 124



CLICK HERE TO LEARN MORE

#ASA - 2002

AutoSmart Advisor

Contains
virtually
every car
and part
known to
man up
through
2000.



Continued from page 122

much better to ask and not go until you are sure that they want you and only you.

Always get an exact location and explicit directions to the job site. If the customer is not familiar with the area, ask to talk to someone else who is and get good directions to the site. Get the make, model, year, and color of the vehicle. Get the street address, the nearest cross street, and the type and color of the house and roof. Ask if the house numbers are plainly posted, and the descriptions of any highly visible landmarks that may help. Ask the customer what they are wearing and tell them what the service tech will be driving. Ask them to flag the driver down as soon as they see them. If the call is an auto lockout at a store, or mall, arrange for the customer to meet the technician at one of the entrances nearest to the car.

Taking an extra minute to get good information makes you money in the long run and a hero in the minds of your service people.

Always get a callback number, even if it is a phone booth or a cell phone. If no number is posted, ask them to call

the operator and get one and call you back. A phone operator would probably also give a caller the physical address of a phone booth in an emergency. Caller ID is good here. If they are on a cell phone, ask them to leave it on. You can't imagine how many people give you a number and then turn the phone off to save the battery life. Lots of things can happen to cause you to call back, but if the directions are bad, sometimes you can get a location from the phone number. There is also a safety issue here. If the phone number checks out, there is a greater chance that the call is legitimate. At least if you don't come back, your people will know where to start looking for you.

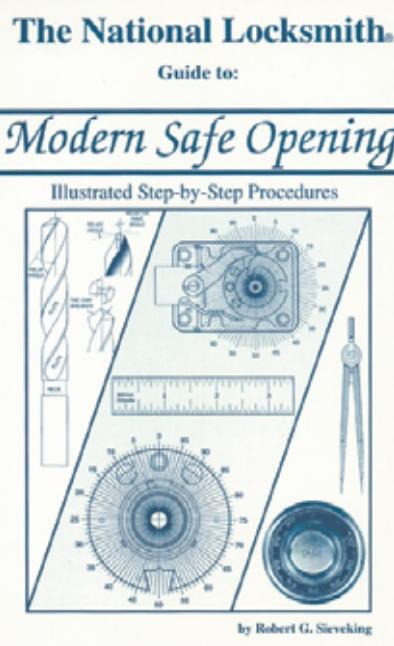
If there is even a hint that the call might be bogus, call back the number to confirm, or just do it anyway as a matter of course. If no one answers, reconsider going until you can confirm the actual existence of the caller and location. There is a real good reason for this. A bogus call always means some kind of mischief. This is often a gut instinct thing, but extremely important. Always follow your gut instinct on what to do. It is nearly always right and certainly it is

right for you. I am alive today because in 1988, I followed my gut instinct about a call, and another locksmith is dead, because he didn't. The point is, when you get this much information and detail from a potential customer, they will think twice before doing anything funny. By then, you know enough to have a feeling as to whether it is a good call or not.

Always keep good notes when taking a call.
Get more



information than you actually need. Write down (legibly) on a permanent pad all the information you have gathered and then make a copy of the pertinent parts to take with you or to give to the service technician. That record can be important if something goes wrong, or



Modern Safe Opening

This book is a step-by-step How-To course in safe penetration. Opening safes is one of the most profitable aspects of the locksmithing business.

CLICK HERE TO LEARN MORE

#MSO - 1

if you want to refer back to see what you did that day or confirm where you were. You may have to call back yourself and ask, "What was that address and phone number?" Someone needs to be able to read it.

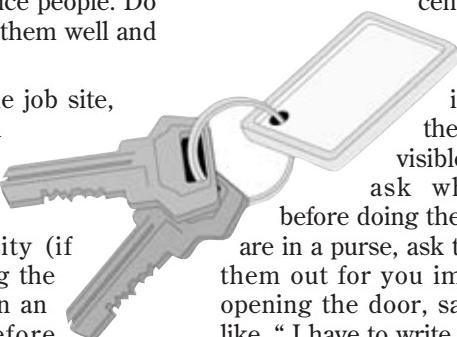
You need to learn to write your notes so that someone else can read them and make sense of them. It is an acquired habit, and one that everyone can do with practice. Just keep saying to yourself, "I am not a doctor and I won't write like one." If you have to, type it out on a computer and keep all your notes electronically. Sometimes you have to force yourself and the customer to slow down and let you write it all down. Do not write your notes in your own personal version of shorthand. Tomorrow, even you won't be able to read it. It is true that time is money, and it may seem that you are wasting it, but true economy is getting the job done right the first time.

Sometimes the customer gets all bent out of shape at what seems like endless questioning. It is up to you to assure them that this is all necessary to better serve and protect them. You are also serving and protecting yourself and your people at the same

time. As a dispatcher, you are responsible for the customer, the business, and your service people. Do all that you can to treat them well and keep them safe.

When arriving on the job site, get the customer to sign an emergency authorization statement, establish their I.D. and authority (if possible before opening the car or house), and sign an agreement to pay before opening the car or house. This firmly establishes everyone's position and puts you in a better position to get paid. Whatever you do, be sure to establish the I.D. and authority of the person as soon as is practicable to do so. Very often, it is not possible to establish this before opening the house or car, but before you turn over possession to that person, require that they confirm that they are legitimate. If they cannot or will not do so, then immediately call the police or sheriff's office and report it. The authorities may or may not do anything, but by reporting it and establishing an incident report by virtue of your call, you have done all

you can reasonably be expected to do, and have thus protected yourself from censure.



When you open a car, immediately get the keys if they are visible. If they are not, ask where they are before doing the opening. If they are in a purse, ask the person to get them out for you immediately after opening the door, saying something like, "I have to write down the codes" or "check the lock", or something. I would not recommend getting the keys out of a lady's purse, or even touching it yourself. However, do whatever you can to get your hands on the keys. Once in your possession, they are without question, legally yours until the debt is settled. If the customer gets their hands on the keys first, then the issue of payment gets much cloudier.

Be Nice! (This is sometimes a real hard one) When doing all of the above, always be nice.

Let your professionalism show whether you are the one on the phone or the one doing the work. Be

**SERVICE
with a
SMILE**

The Lighter Side of Locksmithing

Sara Probasco

The National Locksmith

Service with a Smile

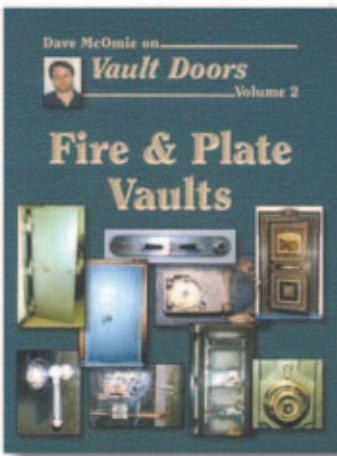
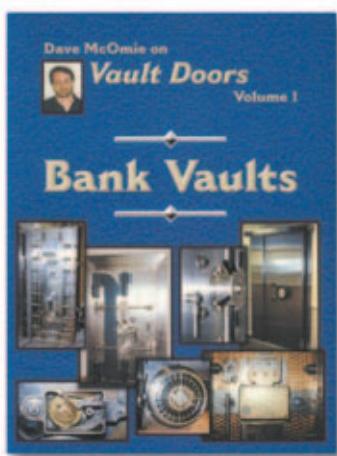
To tickle the funnybone
of anyone in a service
oriented business.

CLICK HERE TO LEARN MORE

#SWS



Dave McOmie on Vault Doors Vol. 1 & 2



These openings can be a nightmare, but not when you bring Dave McOmie along with you on the job.

CLICK HERE TO LEARN MORE



respectful and calm, even when confronted with anger, bad language and bad manners. This may or may not be a future customer, but there will nearly always be customers and future customers watching you during any transaction. How you handle yourself under stress will often determine whether they ever call you again, and what they say about you to others. Don't give a disgruntled customer any ammunition to use on you, such as bad language, bad temper, attitude, or unfairness. The rule of thumb is, "When in doubt (or not) be nice." Take a deep breath, count to ten and then just be nice.

The following is a recommended telephone protocol to be used for answering services and 24 hour dispatchers:

Phone Protocol for Night and Emergency Calls

1. Greeting:

Thank you for calling the locksmith. This is (Your first name). How may I help you?

2. Get the name, address, and callback number of the person calling, even if it is a phone booth, a neighbor's house, or a cell phone.

3. Determine the nature of the problem.

a. Is this a health emergency? If so, what is the Emergency? How long has this been going on, or how long has the person been locked inside the car or house. What is the exact location? In this case, hold the person online, call the serviceman on duty and conference the call. Time can be a critical factor here. Try all available phone numbers first. If you have to page someone, page all those listed as a group using an emergency code, as the "Primary" service person may be out of area on job.

b. Is this an automotive or house lockout? If so, is the person calling the principal person involved. The person requesting work is the only one that can be held financially liable for the call. Get a callback number, ask the customer to wait at that number and call or page the service person on duty, going through the list until you have a confirmed response.

c. Is this a service-related call to secure a business, or make repairs? If so, get a callback number, ask the customer to wait at that number and call or page the service person on duty, going through the list until you have a confirmed response.

d. Is this a non-service call that will wait until tomorrow? If so tell the person calling the office hours. Thank them for calling and ask them to call back tomorrow. Ask to take a message.

4. Contact the service person on duty. If a page is not answered within five minutes, contact the secondary person on the list until you get a confirmed response.

There are a lot of other rules that are good to follow and all of them, and the ones above, have good exceptions to them. These are some of the more important ones. Dispatching and service call procedure is as important as anything that we learn in the security service industry.

BUSINESS BRIEFS

New National Sales Manager for Secura Key

Secura Key announced that Bill Newill has accepted the position of National Sales Manager. In his new position Bill will use his 20 years of sales and management experience to plan and direct Secura Key's sales efforts, while managing their Rep organizations and developing their new Certified Dealer Program. Bill's past experience has seen him manage his own company, become National Sales Manager/Marketing Manager of another access control company, and design and sell large integrated security systems as Sales Manager for a leading systems integrator.

Aiphone Corporation Celebrates 30th Anniversary

Aiphone Corporation will celebrate its 30th Anniversary on July 8th of this year. Located in Bellevue, Washington, Aiphone Corporation is the sole distributor of Aiphone products in the United States, Canada, and Puerto Rico. Their products can be found in government offices, residential and commercial buildings, hospitals, nursing homes, schools, retail stores, as well as manufacturing and warehouse facilities. Aiphone has grown to be the world's largest manufacturer of intercom and video entry systems.

Security Equipment Supply Adds Two New Branch Managers

Jerry Sandusky and Todd Bowen have joined Security Equipment Supply as branch managers. Jerry and Todd are adding more experience and knowledge to SES's credentials. Jerry is the new branch manager for SES-

Memphis. Todd is the new branch manager for SES - N. Chicago. Jerry has been in the industry for 19 years and the past 7 as a manager for another distributor. Todd has been in the industry for 18 years and the past five as a manager for another distributor.

New Sales Reps for Zero International

Zero International has appointed two new sales agencies; John West & Associates of Birmingham, Alabama is now handling sales in Tennessee (Chattanooga and west), Alabama, Louisiana, Mississippi and the Florida Panhandle. The Spargo Group, Inc. of Elmhurst, Illinois is Zero's new representative in Wisconsin and Northern Illinois.

Rutherford Controls Appointment

Vicky Rutherford, VP of Marketing for RCI, is pleased to announce the appointment of Bob Rodkin to Sales Representative for the Ontario Region of Canada. Bob comes to RCI with years of experience in the security field. Bob Rodkin can be reached at: (800) 265-6630 Ext. 246.

Ingersoll-Rand Launches Ussafeschools.org

Critical information developed by recognized experts to help educators and legislators create safer learning environments for America's youth is now available at www.Ussafeschools.org. Introduced at the recently completed National Governor's Association annual meeting, www.USsafeschools.org was designed by Ingersoll-Rand's Commercial Security and Safety business to provide school administrators with the necessary tools - expert contracts, unique information

and actionable strategies - to create safer schools. The www.Ussafeschools.org web site was conceived, developed and built by several companies with extensive experience in the education and facility sectors. The partnership is constantly looking for additional partners who can bring varied experiences and information to the web site.

For more information call: (877) 840-3621 or circle 278 on Rapid Reply.

Aiphone Releases Technical CD

Aiphone Corporation now has a technical CD with expanded product information. The new Aiphone technical CD contains product and company information similar to what is on their redesigned web site. It allows you to search for product information by application, system, or alphabetically. Every product page contains specifications, system components, and product literature that can be downloaded in a PDF format. Aiphone product range from simple audio-only door answering systems to sophisticated video and microprocessor-based systems.

For more information call: (425) 455-0510; Web: www.aiphone.com. Circle 279 on Rapid Reply.

Lockmasters, Inc. Appoints New President

Mark Miller has been appointed that new President of Lockmasters, Inc. Mark, fourth generation in the security industry, has been with Lockmasters for 15 years. Most recently, has was President of Lockmasters' Tool and Equipment Division. In addition to his

experience as a locksmith, Mark has worked for Sargent & Greenleaf, La Gard Inc., and U.S. Security Safe. He is a CPS, and is a member of ALOA, NSO, SAVTA and is a SAVTA board member. For more information about Lockmasters, Inc., visit www.lockmasters.com.

RCI Announces New Sales Manager and New Marketing Manager

Rutherford Controls International Corp. is pleased to announce the appointments of David Koogler as their new Western Regional Sales Manager and Paul DaSilva as their new Marketing Manager for North America. Both have a strong security background on the technical side as well as sales and marketing for the locksmith industry.

For more information: Phone: (800) 899-5625; Web: www.rutherfordcontrols.com.

SOSS Invisible Hinge

SOSS Invisible Hinges have been selected for use by Modernfold, Inc., for a new line of moving walls. SOSS Invisible Hinges provide a clean, secure, unencumbered appearance and cannot be seen from either side when the panels are closed. For extra safety, no hardware protrudes from the wall. The beauty and quality of SOSS Invisible Hinges complement the excellence of Modernfold moving walls. SOSS Invisible Hinges have been called the most beautiful hinges in the world, and can be found in the Oval Office of the White House, Buckingham Palace, hotel lobbies, Cessna Bravo corporate jets, and many other applications.

For more information: Phone: (800) 922-6957; Fax: (419) 737-2130. Circle 280 on Rapid Reply. **TNL**

THRU THE KEYHOLE

A Peek at Movers & Shakers in the Industry

ATTENTION MANUFACTURERS AND DISTRIBUTORS:

Would you like your company and products to be profiled in *Thru The Keyhole*? Please call Editor, Greg Mango, at (630) 837-2044.

CORPORATE OVERVIEW

1-800-UNLOCKS® primary business is to provide emergency "unlock" service by using the trade-marked toll-free telephone number 1-800-UNLOCKS®. Dialing the toll-free 1-800-UNLOCKS® forwards a locked out customer's call through an automated digital dispatch system to the local member of the company's nationwide network of locksmith service providers.



ULI'S ROLE IN THE "NEW" MARKETPLACE

The industry has long been in need of the type of state-of-the-art automated, nationwide dispatch system and a cohesive service provider network that is now being provided by 1-800-UNLOCKS®. According to research and data provided by the American Automobile Association (AAA) and the Associated Locksmiths of America (ALOA), it is estimated that each year 18.3 million customers use professional unlock service.

Originally conceived to provide emergency roadside service, it can be expanded to include all locksmith services. For example, our test market service providers have received requests varying from vehicle lockouts to installing dead-bolt locks in homes and installing security locks on fence gates.

Automated Digital Dispatch System

The automated system is designed to be very efficient and user-friendly. The system is put into motion when a locked-out customer in need of a locksmith dials 1-800-UNLOCKS®. This call can be from any telephone in the United States including cellular units, and the caller selects voice menu choice #1 to be connected directly to the local member of ULI's nationwide network of locksmith service providers. This system is

operational 24 hours a day, 7 days a week, 365 days a year.

The digital system is designed to provide ULI with various statistical and performance reports showing data such as the number of 1-800-UNLOCKS® calls each service provider receives and the originating telephone number, location, date, time, etc.

LICENSING OF 1-800-UNLOCKS®

The nationwide network of service providers is comprised of individual locksmith companies, which are licensed by Unlocks, Inc. to participate in the network and benefit from the exclusive use of the toll-free 1-800-UNLOCKS® dispatch system. A key element of the application is the designation of the telephone 3-digit exchange codes (prefixes) to be included in the exclusively licensed geographic area. These exchange codes are included in ULI's customized database that includes population data and other demographics. The amount of the license fee for a geographic service area is determined by the total population of the area as indicated by its exchange codes.

The commitment of the service provider is on a month-to-month basis and can be terminated by a written 30-day notice to ULI. A monthly licensing fee is based on the area's population as determined by the telephone exchange codes within the requested service area. An area's base monthly license fee currently is \$59.00 per 100,000 population. The monthly fee for any given service area can be adjusted in direct proportion to the population. For example, the license fee for a larger service area of

300,000 population would be \$177.00 per month (\$59.00 x 3) and, conversely, the cost of a service area of under 50,000 would be reduced to a minimum charge of \$39.00. Also, there is a one-time non-refundable processing/set-up fee of \$99.00 for each application.

WHAT CAN 1-800-UNLOCKS® DO FOR YOU?

The largest and most attractive part to ULI's digital dispatch system is the fact that there is absolutely no human intervention, unless there is not a 1-800-UNLOCKS® service provider for that particular area. This means that the service provider instantly receives the call and is able to dictate his/her price. This makes 1-800-UNLOCKS® the only service that automatically dispatches the call, and not only allows the service provider to receive payment from the consumer, and does not have to return a percentage of his sales to us. We do not consider ourselves a "roadside service." We are simply a very powerful marketing tool that brings the consumer to the 1-800-UNLOCKS® provider. There are no purchase orders to deal with; therefore there is no waiting to be paid from the roadside service. Some locksmiths wait up to 90-days to receive payment from these "roadside services".

1-800-UNLOCKS® is now offering a 60-day trial offer. After the 60-day trial offer is up, we can refer to our MCI/Worldcom® call sheet to determine the amount of calls the service provider is receiving; showing the new 1-800-UNLOCKS® provider that it is, in fact, a cost effective program.

For more information on 1-800-UNLOCKS contact Jeff Musser at:

*P.O. Box 6774
Ozona, FL 34660
Phone: (727) 771-8942
Mobil: 727-481-3065
Fax: 727-772-6692
E-mail: Info@1-800-UNLOCKS.com
Website: www.1-800-UNLOCKS.com
Circle 284 on Rapid Reply. TNL*



KEY CODES

BMW Series

BMW BH010009-BH241009, Part 4

Manufacturer: BMW

Code Series: BH010009 - BH241009

Key Blanks:

Boerkey: 1458PS

CEA: BM2P

Errebi: HF48P8

Fuki: MT-4

Ilco: S7BW-P

Ilco EZ: S7BW-P

JMA: BM5P

Kraga: AP196

Lotus: HF155S

Orion: S7BWP

RR: XPHF116

R Clover: C-5

Silca: HU58AP

Number of Cuts: 12, six on either side.

M.A.C.S.: 2

Key Gauged: Shoulder

Center of First Cut: Side A: .183 Side B: .228

Cut to Cut Spacings: .128

Cut Depth Increments: .024

Notes: Requires a side cutting milling machine to produce key.

Spacings:

A Side	B Side
1 - .183	.228
2 - .311	.356
3 - .439	.484
4 - .567	.612
5 - .695	.740
6 - .823	.868

Depths:

1 = .276
2 = .252
3 = .228
4 = .205

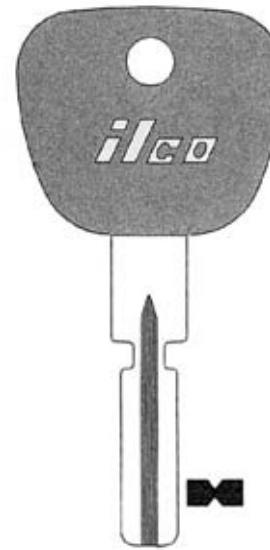
HPC 1200CMB

Code Card: N/A

Jaw: N/A

Cutter: N/A

Gauge From:



HPC 1200PCH (Punch):

PCH Card: N/A

Punch: N/A

Jaw: N/A

Silca UnoCode

Card Number: N/A

HPC CodeMax

DSD #: N/A

Jaw: N/A

Cutter: N/A

Curtis No. 15 Code Cutter:

Cam-Set: N/A

Carriage: N/A

Framon #2:

Cuts Start at: N/A

Spacing: N/A

Block #: N/A

Depth Increments: N/A

Cutter: N/A

Key Clamping Info: N/A

A-1 Pack-A-Punch

Quick Change Kit: N/A

Punch: N/A

Die: N/A

ITL 9000 & 950

Manufacturer ID: N/A

BH030901 124231-313323
 BH030902 331131-344423
 BH030903 113131-434223
 BH030904 121131-444423
 BH030905 412131-344223
 BH030906 331231-244423
 BH030907 243331-133423
 BH030908 413431-432223
 BH030909 311231-431223
 BH030910 134431-413123
 BH030911 331131-442323
 BH030912 433431-121123
 BH030913 232131-434423
 BH030914 112431-432223
 BH030915 421131-243223
 BH030916 344231-132223
 BH030917 243131-112123
 BH030918 442331-112223
 BH030919 224231-213123
 BH030920 244431-231123
 BH030921 431131-444223
 BH030922 334331-412423
 BH030923 213231-434423
 BH030924 122131-344423
 BH030925 442131-132223
 BH030926 211231-343323
 BH030927 444231-211123
 BH030928 421231-343423
 BH030929 343131-244323
 BH030930 211131-242223

BH030931 412431-443323
 BH030932 311231-442423
 BH030933 242131-334323
 BH030934 434331-312423
 BH030935 224331-413423
 BH030936 243431-421323
 BH030937 111331-443223
 BH030938 432431-231223
 BH030939 311231-243123
 BH030940 243231-122123
 BH030941 411231-424323
 BH030942 324331-112123
 BH030943 421131-442323
 BH030944 124331-113223
 BH030945 331231-444223
 BH030946 212331-444323
 BH030947 131131-344223
 BH030948 443331-132423
 BH030949 342231-123423
 BH030950 124431-131323
 BH030951 334231-213123
 BH030952 312131-344323
 BH030953 223431-221123
 BH030954 424231-411323
 BH030955 312331-443323
 BH030956 213231-411323
 BH030957 132431-231123
 BH030958 323431-321123
 BH030959 113131-423223
 BH030960 112431-444323

BH030961 433131-244423
 BH030962 323131-224423
 BH030963 244231-122423
 BH030964 413131-423323
 BH030965 312431-413123
 BH030966 113231-444223
 BH030967 323131-424223
 BH030968 344331-413123
 BH030969 224331-411223
 BH030970 113431-413223
 BH030971 444231-133223
 BH030972 343231-123323
 BH030973 223131-124423
 BH030974 413131-134223
 BH030975 243131-133223
 BH030976 234231-211223
 BH030977 423431-431223
 BH030978 313331-443423
 BH030979 213431-421223
 BH030980 111131-324223
 BH030981 442431-121123
 BH030982 231131-234323
 BH030983 421131-234223
 BH030984 443131-234223
 BH030985 334231-211323
 BH030986 242331-132423
 BH030987 411231-434223
 BH030988 312331-421123
 BH030989 221231-343223
 BH030990 413131-334223

BH030991 213431-431123
 BH030992 221331-442123
 BH030993 113431-421323
 BH030994 411231-242123
 BH030995 344231-124223
 BH030996 234431-121223
 BH030997 433131-344223
 BH030998 234331-411323
 BH030999 411331-443123
 BH040001 331131-442121
 BH040002 212431-442221
 BH040003 131131-334321
 BH040004 442231-134321
 BH040005 342131-121121
 BH040006 123431-121321
 BH040007 322131-244321
 BH040008 311231-342121
 BH040009 212131-244321
 BH040010 413231-443221
 BH040011 312231-442121
 BH040012 211131-413221
 BH040013 134331-213231
 BH040014 324331-312121
 BH040015 112231-424321
 BH040016 112131-443121
 BH040017 431131-243321
 BH040018 324231-213221
 BH040019 243431-123421
 BH040020 412331-424321
 BH040021 342131-344421

BMW Series

BMW BH010009-BH241009, Part 4

BH040022	113331-442321	BH040064	333131-224321	BH040106	444331-124321	BH040148	113131-124221
BH040023	324231-413321	BH040065	242431-133421	BH040107	343431-111221	BH040149	331231-442221
BH040024	344231-411221	BH040066	412431-432321	BH040108	132431-411321	BH040150	244231-123121
BH040025	213231-443421	BH040067	313331-421221	BH040109	424331-312421	BH040151	442331-124321
BH040026	112331-413221	BH040068	232431-311321	BH040110	211331-443121	BH040152	443231-134221
BH040027	443331-134421	BH040069	132131-134421	BH040111	413331-421121	BH040153	343231-121321
BH040028	343431-121321	BH040070	331231-243121	BH040112	412231-442221	BH040154	224231-111221
BH040029	224331-112221	BH040071	122131-344221	BH040113	312131-433221	BH040155	434231-312421
BH040030	343431-421221	BH040072	113231-424221	BH040114	244231-313321	BH040156	311331-342221
BH040031	242331-134421	BH040073	411331-244221	BH040115	121131-234321	BH040157	213131-244421
BH040032	221131-243221	BH040074	342131-132321	BH040116	432431-131321	BH040158	444331-133121
BH040033	421131-424321	BH040075	242331-111121	BH040117	231231-442321	BH040159	234331-311221
BH040034	313231-442421	BH040076	444331-312421	BH040118	413131-442421	BH040160	213331-413221
BH040035	211331-421121	BH040077	321331-344321	BH040119	343231-122221	BH040161	131231-242221
BH040036	131331-242321	BH040078	112231-431321	BH040120	313431-221321	BH040162	444231-111221
BH040037	444231-112121	BH040079	312131-434321	BH040121	244331-112421	BH040163	324231-111121
BH040038	234331-212421	BH040080	322131-434421	BH040122	413331-412121	BH040164	112231-443221
BH040039	424331-211221	BH040081	212231-432121	BH040123	344331-312121	BH040165	431231-243421
BH040040	444331-213221	BH040082	124431-313121	BH040124	242131-244221	BH040166	213231-422121
BH040041	321331-243321	BH040083	443431-123221	BH040125	431231-444321	BH040167	444231-313321
BH040042	244331-124421	BH040084	342231-111121	BH040126	311331-243421	BH040168	413431-424221
BH040043	411231-431321	BH040085	121131-434321	BH040127	131231-243121	BH040169	313231-413421
BH040044	311231-421121	BH040086	322131-444321	BH040128	133131-324421	BH040170	223131-324421
BH040045	221131-334321	BH040087	244431-113221	BH040129	442431-133421	BH040171	123131-134221
BH040046	443131-244221	BH040088	243231-134221	BH040130	344331-113221	BH040172	344331-411321
BH040047	212131-433121	BH040089	413131-433421	BH040131	134431-431121	BH040173	213331-443321
BH040048	221131-434221	BH040090	311131-432221	BH040132	424431-331321	BH040174	412331-431121
BH040049	112231-422121	BH040091	231231-342221	BH040133	342431-231221	BH040175	342431-111121
BH040050	412431-221321	BH040092	111331-243421	BH040134	131331-344221	BH040176	343331-124421
BH040051	344331-121321	BH040093	422131-134221	BH040135	311131-422121	BH040177	232431-111321
BH040052	234331-111221	BH040094	244231-133421	BH040136	311331-444321	BH040178	431131-342121
BH040053	431231-342421	BH040095	442331-134421	BH040137	243131-344221	BH040179	324431-313121
BH040054	221331-443221	BH040096	423131-234421	BH040138	134231-212221	BH040180	221231-243121
BH040055	413331-434221	BH040097	344331-131221	BH040139	442331-113321	BH040181	423431-421121
BH040056	421331-443221	BH040098	243331-111221	BH040140	244331-412421	BH040182	344331-124221
BH040057	324331-411121	BH040099	443131-334221	BH040141	113331-434221	BH040183	111331-244321
BH040058	213131-424421	BH040100	332131-334221	BH040142	312431-443421	BH040184	112131-334421
BH040059	111131-342421	BH040101	242431-211321	BH040143	234331-112121	BH040185	442231-123321
BH040060	442431-123321	BH040102	434231-211221	BH040144	243331-123121	BH040186	332431-111221
BH040061	334331-111321	BH040103	212131-412421	BH040145	412231-423121	BH040187	113431-443121
BH040062	434231-413321	BH040104	213131-433221	BH040146	344431-331321	BH040188	444431-213121
BH040063	344331-132321	BH040105	121331-343221	BH040147	211231-343121	BH040189	321131-244421

NSO One Year Membership

To make big profits in safe work
with no hassles...you need information!

} [CLICK HERE TO LEARN MORE](#)

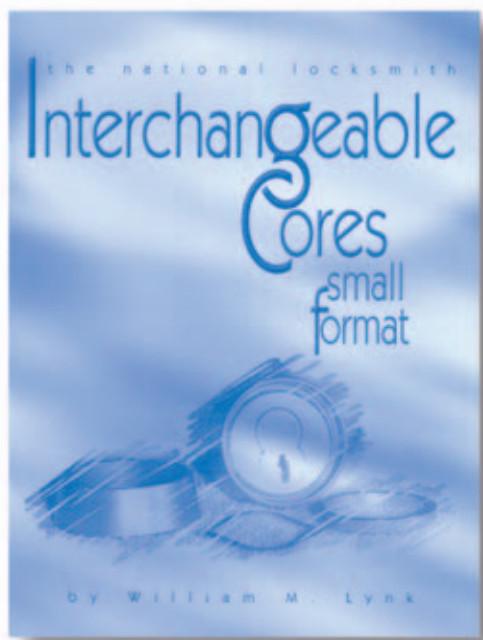


Free when
you join NSO

BMW Series

BMW BH010009-BH241009, Part 4

BH040190	113131-344421	BH040216	234431-331321	BH040242	231131-442221	BH040268	311131-234221
BH040191	331131-342221	BH040217	111231-243121	BH040243	112331-432321	BH040269	244231-113221
BH040192	312431-424321	BH040218	424431-121321	BH040244	424431-231321	BH040270	443431-112221
BH040193	223131-344221	BH040219	232431-411221	BH040245	344431-131321	BH040271	221331-243421
BH040194	131131-134321	BH040220	113331-424321	BH040246	121331-244221	BH040272	211331-342321
BH040195	413131-124321	BH040221	413131-244221	BH040247	311131-343321	BH040273	442431-431321
BH040196	222431-431121	BH040222	244231-311221	BH040248	344331-311221	BH040274	334431-431321
BH040197	112131-423121	BH040223	421331-342221	BH040249	243131-234421	BH040275	212331-442321
BH040198	313131-424321	BH040224	442131-334321	BH040250	431231-443221	BH040276	134431-321321
BH040199	134331-411221	BH040225	334431-321121	BH040251	334231-412421	BH040277	442131-134421
BH040200	234431-131321	BH040226	233131-244221	BH040252	213231-433121	BH040278	224431-312121
BH040201	444231-312321	BH040227	433431-421321	BH040253	121131-344321	BH040279	443431-221321
BH040202	321131-344321	BH040228	324431-431321	BH040254	343131-324321	BH040280	434231-311321
BH040203	233131-224421	BH040229	212331-432221	BH040255	112331-443321	BH040281	311131-342421
BH040204	421131-444321	BH040230	412131-413321	BH040256	133431-431221	BH040282	211331-244221
BH040205	324331-412221	BH040231	244231-413321	BH040257	422131-334421	BH040283	413131-443321
BH040206	242231-113421	BH040232	343231-111221	BH040258	343131-224421	BH040284	312131-442421
BH040207	433131-134221	BH040233	123131-444221	BH040259	244331-134321	BH040285	243131-344421
BH040208	443231-123421	BH040234	424331-311121	BH040260	412331-442121	BH040286	431131-334221
BH040209	332131-134421	BH040235	332131-244421	BH040261	312131-433421	BH040287	223431-431221
BH040210	123131-424421	BH040236	243331-134221	BH040262	131331-444321	BH040288	311131-134321
BH040211	412431-331321	BH040237	413331-433221	BH040263	344231-412421	BH040289	112431-442321
BH040212	331131-234221	BH040238	343431-113421	BH040264	442231-113221	BH040290	431131-243121
BH040213	242131-134421	BH040239	112131-134421	BH040265	244231-412421	BH040291	324331-211321
BH040214	444331-122121	BH040240	123131-224421	BH040266	113431-433221	BH040292	243431-123221
BH040215	243131-244221	BH040241	431131-134221	BH040267	434231-213421	BH040293	412131-424321



IC Cores: Small Format

Everything you ever need to know
about how to sell, service, install and
troubleshoot interchangeable cores!

[CLICK HERE TO LEARN MORE](#)



BMW Series

BMW BH010009-BH241009, Part 4

BH040294	323431-121321	BH040319	321331-442221	BH040344	222131-444221
BH040295	422131-444221	BH040320	344431-431321	BH040345	113131-424321
BH040296	122431-131321	BH040321	224431-421221	BH040346	411231-244321
BH040297	343431-411321	BH040322	112131-422241	BH040347	342131-132121
BH040298	213231-443221	BH040323	412431-221121	BH040348	242231-111221
BH040299	112231-413121	BH040324	344331-121121	BH040349	444331-312221
BH040300	443331-134221	BH040325	234231-111321	BH040350	233131-424221
BH040301	343431-121121	BH040326	424431-113221	BH040351	412431-442321
BH040302	131131-124221	BH040327	244331-131121	BH040352	432431-421321
BH040303	332431-231321	BH040328	231131-224421	BH040353	322131-434221
BH040304	324231-313421	BH040329	421231-443321	BH040354	212131-432421
BH040305	224431-231321	BH040330	324231-411321	BH040355	124331-313421
BH040306	424431-413121	BH040331	213131-424221	BH040356	443331-123321
BH040307	313231-442221	BH040332	111131-342221	BH040357	342131-111221
BH040308	211231-421221	BH040333	442431-123121	BH040358	434431-431321
BH040309	131331-242121	BH040334	231131-243121	BH040359	312131-234321
BH040310	321131-342121	BH040335	421231-243121	BH040360	331331-244321
BH040311	111331-431321	BH040336	413131-324321	BH040361	243431-133421
BH040312	113231-443321	BH040337	333431-221321	BH040362	413131-433221
BH040313	444231-213321	BH040338	242431-133321	BH040363	311331-431321
BH040314	321331-243121	BH040339	412431-432121	BH040364	231131-342321
BH040315	244331-124321	BH040340	313231-421321	BH040365	111331-243221
BH040316	411231-431121	BH040341	232431-311121	BH040366	344231-213221
BH040317	313431-413221	BH040342	411331-343221	BH040367	132131-334221
BH040318	124331-413121	BH040343	213231-434221	BH040368	112231-432221

BH040369 423131-234221
BH040370 344231-131321
BH040371 243231-111321
BH040372 443431-331121
BH040373 332431-331221
BH040374 113131-432221
BH040375 312331-442221
BH040376 334231-411321
BH040377 213431-432421
BH040378 121231-343321
BH040379 444331-124221
BH040380 343331-111321
BH040381 132431-411121
BH040382 333131-424321
BH040383 243131-124421
BH040384 244231-134321
BH040385 412131-442321
BH040386 312431-432421
BH040387 244231-313221
BH040388 124431-221321
BH040389 432431-131121
BH040390 211331-242221
BH040391 444331-131121
BH040392 434331-212421

Continued on page 137

Safe Deposit Box Service

There is gold in
safe deposit boxes!

[CLICK HERE TO LEARN MORE](#)



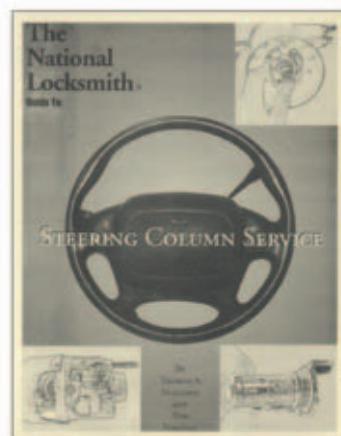
Continued from page 134

BMW Series

BMW BH010009-BH241009, Part 4

BH040393	313431-221121	BH040448	444331-134221
BH040394	244331-112221	BH040449	343331-124321
BH040395	413231-412421	BH040450	232431-111121
BH040396	344231-312421	BH040451	434431-331321
BH040397	244431-231321	BH040452	324331-313421
BH040398	432131-234421	BH040453	221131-243421
BH040399	211231-422121	BH040454	411331-242221
BH040400	212131-442321	BH040455	231331-342121
BH040401	133131-324221	BH040456	213231-423421
BH040402	442431-133321	BH040457	112131-334221
BH040403	344231-113321	BH040458	442231-123121
BH040404	133131-434421	BH040459	324431-131321
BH040405	424431-331221	BH040460	113331-443421
BH040406	213131-442221	BH040461	444331-213421
BH040407	411131-432121	BH040462	211231-433121
BH040408	413431-442121	BH040463	444431-331221
BH040409	311231-444221	BH040464	412231-432321
BH040410	242131-344421	BH040465	312231-424321
BH040411	134331-211221	BH040466	222131-344321
BH040412	442331-113121	BH040467	134431-121321
BH040413	244331-412321	BH040468	412131-124421
BH040414	424331-412121	BH040469	221131-434421
BH040415	344231-122121	BH040470	413231-431121
BH040416	313131-244321	BH040471	343131-112421
BH040417	243231-123421	BH040472	342331-131221
BH040418	412131-423421	BH040473	234431-131121
BH040419	344431-331121	BH040474	444231-312121
BH040420	211131-343421	BH040475	321331-343421
BH040421	112131-124321	BH040476	233131-224221
BH040422	324431-221321	BH040477	421331-443421
BH040423	111231-342321	BH040478	342431-133121
BH040424	112331-412121	BH040479	122131-234221
BH040425	443431-133421	BH040480	124231-313121
BH040426	343231-121121	BH040481	443231-123221
BH040427	213131-134421	BH040482	332131-134221
BH040428	434231-312221	BH040483	123131-424221
BH040429	311231-342321	BH040484	412431-331121
BH040430	111331-421221	BH040485	334431-221221
BH040431	313431-421121	BH040486	123131-334421
BH040432	312431-444321	BH040487	344331-312421
BH040433	213231-413321	BH040488	313431-424321
BH040434	131131-242321	BH040489	234431-331121
BH040435	443431-113321	BH040490	111131-243421
BH040436	312131-134421	BH040491	424431-121121
BH040437	112131-443321	BH040492	223131-444321
BH040438	313431-443321	BH040493	113231-424421
BH040439	242431-111221	BH040494	312331-431221
BH040440	244231-124321	BH040495	131131-442121
BH040441	413331-424321	BH040496	242431-113421
BH040442	313231-413221	BH040497	442131-334221
BH040443	223131-324221	BH040498	333131-324421
BH040444	123431-131221	BH040499	232131-244321
BH040445	344331-411121	BH040500	433431-421221
BH040446	242431-132321	BH040501	324431-431221
BH040447	443131-124221	BH040502	243231-113321

GM Steering Column Course



Comes complete with take-home test so you can become certified on GM steering column service! Authoritative training on every domestic GM column from 1967 to 1995.

CLICK HERE TO LEARN MORE

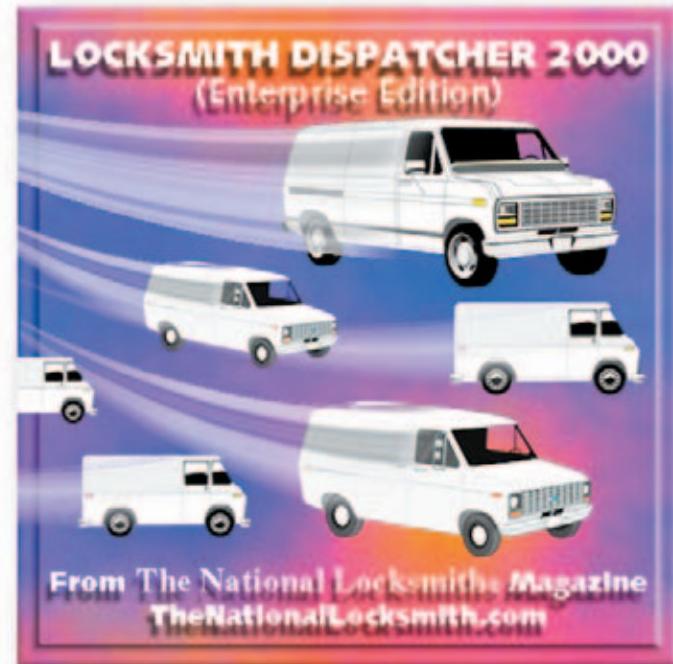


#GM - 2

BMW Series

BMW BH010009-BH241009, Part 4

BH040503	442431-113421	BH040528	344331-112121	BH040533	434231-311121	BH040578	224431-231121
BH040504	444431-123121	BH040529	132131-434321	BH040554	311131-342221	BH040579	424331-413421
BH040505	343131-111321	BH040530	422131-334221	BH040555	211231-244321	BH040580	313131-442321
BH040506	122131-444321	BH040531	343131-224221	BH040556	413131-443121	BH040581	213431-413121
BH040507	424231-311321	BH040532	244331-134221	BH040557	312131-442221	BH040582	432131-344421
BH040508	332131-244221	BH040533	412231-442421	BH040558	223131-124221	BH040583	234331-411121
BH040509	243231-134421	BH040534	342131-123321	BH040559	412131-134321	BH040584	322431-131321
BH040510	442431-132321	BH040535	124431-131121	BH040560	443331-113221	BH040585	113231-443121
BH040511	211331-343221	BH040536	132431-211321	BH040561	313131-124421	BH040586	444231-213121
BH040512	244331-312221	BH040537	442131-113321	BH040562	112431-442121	BH040587	321231-243421
BH040513	123131-224221	BH040538	244231-412221	BH040563	431331-242421	BH040588	244331-124221
BH040514	434431-121221	BH040539	113331-433121	BH040564	324331-211121	BH040589	413431-424321
BH040515	234431-431221	BH040540	434231-213221	BH040565	243331-123321	BH040590	332431-121121
BH040516	112331-432121	BH040541	313131-224321	BH040566	442231-121321	BH040591	433131-424321
BH040517	424431-231121	BH040542	131131-234421	BH040567	234431-221321	BH040592	133131-124221
BH040518	242131-334221	BH040543	322131-324421	BH040568	221131-324221	BH040593	344431-431221
BH040519	434331-312321	BH040544	342131-334221	BH040569	122431-131121	BH040594	223131-424321
BH040520	413131-412121	BH040545	211331-342121	BH040570	343431-411121	BH040595	112331-421321
BH040521	344231-311321	BH040546	442431-431121	BH040571	213131-443321	BH040596	411131-224221
BH040522	243131-234221	BH040547	334431-431121	BH040572	112131-413421	BH040597	344231-121221
BH040523	431131-443321	BH040548	212331-442121	BH040573	443231-134421	BH040598	112131-234321
BH040524	334231-412221	BH040549	134431-321121	BH040574	221131-343321	BH040599	333131-244321
BH040525	213131-433421	BH040550	312331-413221	BH040575	413431-331221	BH040600	321231-343121
BH040526	411131-424221	BH040551	113131-444321	BH040576	433131-334221	BH040601	231131-224221
BH040527	324331-111221	BH040552	211131-134221	BH040577	324231-313321	BH040602	421231-443121



Locksmith Dispatcher 2000

Controlled Service
dispatching software
specifically for
the locksmith!

[CLICK HERE TO LEARN MORE](#)



BMW Series

BMW BH010009-BH241009, Part 4

BH040603	324231-411221	BH040660	244431-312121	BH040717	122131-134321	BH040774	344331-133221
BH040604	213431-423221	BH040661	124431-221121	BH040718	334331-211221	BH040775	134231-212421
BH040605	113431-331121	BH040662	312431-321121	BH040719	121131-324321	BH040776	121331-342321
BH040606	334331-312221	BH040663	112431-413121	BH040720	111231-424221	BH040777	444331-123421
BH040607	112431-432421	BH040664	113131-433121	BH040721	444231-134321	BH040778	342431-113321
BH040608	122431-421321	BH040665	434331-212221	BH040722	343331-124221	BH040779	121331-444421
BH040609	413431-321321	BH040666	312131-224421	BH040723	224431-131221	BH040780	424231-311221
BH040610	333431-221121	BH040667	244231-112321	BH040724	434431-331121	BH040781	331331-244421
BH040611	242431-133221	BH040668	413231-412221	BH040725	324331-313221	BH040782	134231-312121
BH040612	412331-432421	BH040669	344231-312221	BH040726	113131-422121	BH040783	342131-344221
BH040613	313231-421121	BH040670	111331-443421	BH040727	311131-432421	BH040784	312231-432421
BH040614	121131-443321	BH040671	313331-442121	BH040728	313331-444321	BH040785	244231-312421
BH040615	334331-412321	BH040672	332431-431121	BH040729	213231-423221	BH040786	123431-221221
BH040616	423431-121221	BH040673	212131-442121	BH040730	112431-331221	BH040787	433131-124321
BH040617	221331-444321	BH040674	133431-321221	BH040731	442131-123421	BH040788	233431-431121
BH040618	113431-423121	BH040675	442431-133221	BH040732	324431-131121	BH040789	112231-432421
BH040619	411131-244221	BH040676	344231-113121	BH040733	113331-443221	BH040790	311231-442221
BH040620	342431-131321	BH040677	133131-434221	BH040734	321131-424421	BH040791	224331-111121
BH040621	242131-111321	BH040678	331231-444421	BH040735	243431-111121	BH040792	244331-111121
BH040622	434331-112121	BH040679	242131-131121	BH040736	242331-133121	BH040793	413231-411321
BH040623	211131-224221	BH040680	211331-243121	BH040737	412231-432121	BH040794	344231-311121
BH040624	231231-244321	BH040681	413331-442421	BH040738	312131-424421	BH040795	243431-231221
BH040625	432431-421121	BH040682	311131-444321	BH040739	221331-344421	BH040796	431131-443121
BH040626	322431-431221	BH040683	242131-344321	BH040740	134431-121121	BH040797	334331-411221
BH040627	212131-432221	BH040684	134231-211321	BH040741	411131-124321	BH040798	243131-122221
BH040628	124331-313221	BH040685	442231-113421	BH040742	243231-132421	BH040799	444331-111121
BH040629	443331-123121	BH040686	223431-221321	BH040743	442131-131121	BH040800	442331-133121
BH040630	244331-213421	BH040687	412131-224321	BH040744	411231-243421	BH040801	344231-112421
BH040631	431131-224221	BH040688	431231-242321	BH040745	342231-131321	BH040802	132431-431321
BH040632	412131-344421	BH040689	312131-244421	BH040746	233131-134421	BH040803	422431-331221
BH040633	331331-244221	BH040690	243231-123221	BH040747	444331-311321	BH040804	343431-221221
BH040634	243431-133121	BH040691	412331-422121	BH040748	321331-343221	BH040805	244231-134421
BH040635	413431-432421	BH040692	342131-334421	BH040749	233431-221221	BH040806	443231-132421
BH040636	311331-431121	BH040693	211131-343221	BH040750	422131-224421	BH040807	224431-321121
BH040637	231131-342121	BH040694	442431-211121	BH040751	244231-313421	BH040808	244431-331221
BH040638	422431-321121	BH040695	213231-424321	BH040752	212331-431121	BH040809	132431-211121
BH040639	212431-442421	BH040696	213431-442121	BH040753	124331-312321	BH040810	442131-113121
BH040640	232131-434221	BH040697	112131-412321	BH040754	443131-123321	BH040811	244331-411221
BH040641	112131-432321	BH040698	443431-133121	BH040755	332431-131221	BH040812	113231-433421
BH040642	423431-231221	BH040699	343131-121221	BH040756	123431-421221	BH040813	434431-212121
BH040643	344231-131121	BH040700	213131-134221	BH040757	411131-334221	BH040814	212431-413221
BH040644	243231-111121	BH040701	434331-311221	BH040758	212231-434321	BH040815	431131-342321
BH040645	442131-334421	BH040702	224331-412121	BH040759	413131-413221	BH040816	412431-421321
BH040646	231331-444421	BH040703	412431-432421	BH040760	413331-432121	BH040817	342431-331321
BH040647	413231-443421	BH040704	424231-413421	BH040761	313431-424221	BH040818	211231-342421
BH040648	431331-442321	BH040705	312431-444221	BH040762	233131-334421	BH040819	443431-421321
BH040649	334231-411121	BH040706	213231-413121	BH040763	111131-243221	BH040820	332131-434321
BH040650	213431-432221	BH040707	131131-242121	BH040764	423131-124421	BH040821	212231-442421
BH040651	121231-343121	BH040708	443431-113121	BH040765	222131-444421	BH040822	413431-422121
BH040652	444231-124321	BH040709	312131-134221	BH040766	411331-442421	BH040823	334231-112221
BH040653	343331-111121	BH040710	423131-434221	BH040767	344331-113421	BH040824	342231-124321
BH040654	444331-411221	BH040711	342231-132221	BH040768	342331-134221	BH040825	213131-124321
BH040655	324231-213421	BH040712	321131-243121	BH040769	242431-113321	BH040826	432431-311321
BH040656	342431-221321	BH040713	244231-124221	BH040770	442431-331321	BH040827	312131-334421
BH040657	244231-134221	BH040714	413331-424221	BH040771	333131-324221	BH040828	211131-244221
BH040658	412131-442121	BH040715	313131-413321	BH040772	231331-244421	BH040829	413431-442321
BH040659	312431-432221	BH040716	223431-321221	BH040773	432131-424321	BH040830	343131-123421

BMW Series

BMW BH010009-BH241009, Part 4

BH040831	132431-131221	BH040887	431231-443421	BH040943	421131-442321	BH040999	411331-443121
BH040832	133131-234421	BH040888	111231-242421	BH040944	124331-113221	BH050001	331133-442112
BH040833	443231-113321	BH040889	422131-124321	BH040945	331231-444221	BH050002	212433-442212
BH040834	313131-124221	BH040890	221231-444421	BH040946	212331-444321	BH050003	131133-334312
BH040835	112331-442421	BH040891	113331-423221	BH040947	131131-344221	BH050004	442233-134312
BH040836	431331-242321	BH040892	411331-243321	BH040948	443331-132421	BH050005	342133-121112
BH040837	324231-211221	BH040893	342431-131121	BH040949	342231-123421	BH050006	123433-121312
BH040838	132131-244421	BH040894	124231-213221	BH040950	124431-131321	BH050007	322133-244312
BH040839	321231-344221	BH040895	344431-221121	BH040951	334231-213121	BH050008	311233-342112
BH040840	313231-412321	BH040896	332431-321321	BH040952	312131-344321	BH050009	212133-244312
BH040841	224431-313221	BH040897	231131-244421	BH040953	223431-221121	BH050010	413233-443212
BH040842	121131-134421	BH040898	431131-424421	BH040954	424231-411321	BH050011	312233-442112
BH040843	342431-411221	BH040899	321131-434321	BH040955	312331-443321	BH050012	211133-413212
BH040844	213131-443121	BH040900	212431-431221	BH040956	213231-411321	BH050013	134333-212312
BH040845	112131-413221	BH040901	124231-313321	BH040957	132431-231121	BH050014	324333-312112
BH040846	311331-424221	BH040902	331131-344421	BH040958	323431-321121	BH050015	112233-424312
BH040847	124431-421121	BH040903	113131-434221	BH040959	113131-423221	BH050016	112133-443112
BH040848	222131-134221	BH040904	121131-444421	BH040960	112431-444321	BH050017	431133-243312
BH040849	433431-331221	BH040905	412131-344221	BH040961	433131-244421	BH050018	324233-213212
BH040850	324231-313121	BH040906	331231-244421	BH040962	323131-224421	BH050019	243433-123412
BH040851	223131-234421	BH040907	243331-133421	BH040963	244231-122421	BH050020	412333-424312
BH040852	424331-413321	BH040908	413431-432221	BH040964	413131-423321	BH050021	342133-344412
BH040853	313131-442121	BH040909	311231-431221	BH040965	312431-413121	BH050022	113333-442312
BH040854	233431-121321	BH040910	134431-413121	BH040966	113231-444221	BH050023	324233-413312
BH040855	421131-134321	BH040911	331131-442321	BH040967	323131-424221	BH050024	344233-411212
BH040856	442331-122121	BH040912	433431-121121	BH040968	344331-413121	BH050025	213233-443412
BH040857	322431-131121	BH040913	232131-434421	BH040969	224331-411221	BH050026	112333-413212
BH040858	113131-443421	BH040914	112431-432221	BH040970	113431-413221	BH050027	443333-134412
BH040859	444331-212321	BH040915	421131-243221	BH040971	444231-133221	BH050028	343433-121312
BH040860	321231-243221	BH040916	344231-132221	BH040972	343231-123321	BH050029	224333-112212
BH040861	244231-124421	BH040917	243131-112121	BH040973	223131-124421	BH050030	343433-421212
BH040862	443431-121221	BH040918	442331-112221	BH040974	413131-134221	BH050031	242333-134412
BH040863	233131-244421	BH040919	224231-213121	BH040975	243131-133221	BH050032	221133-243212
BH040864	221131-344421	BH040920	244431-231121	BH040976	234231-211221	BH050033	421133-424312
BH040865	133431-121221	BH040921	431131-444221	BH040977	423431-431221	BH050034	313233-442412
BH040866	342431-431321	BH040922	334331-412421	BH040978	313331-443421	BH050035	211333-421112
BH040867	223431-421321	BH040923	213231-434421	BH040979	213431-421221	BH050036	131333-242312
BH040868	112331-421121	BH040924	122131-344421	BH040980	111131-324221	BH050037	444233-112112
BH040869	444331-134321	BH040925	442131-132221	BH040981	442431-121121	BH050038	234333-212412
BH040870	233431-321321	BH040926	211231-343321	BH040982	231131-234321	BH050039	424333-211212
BH040871	424331-311321	BH040927	444231-211121	BH040983	421131-234221	BH050040	444333-213212
BH040872	443431-311321	BH040928	421231-343421	BH040984	443131-234221	BH050041	321333-243312
BH040873	321131-343421	BH040929	343131-244321	BH040985	334231-211321	BH050042	244333-124412
BH040874	234431-213221	BH040930	211131-242221	BH040986	242331-132421	BH050043	411233-431312
BH040875	421131-443421	BH040931	412431-443321	BH040987	411231-434221	BH050044	311233-421112
BH040876	313431-444321	BH040932	311231-442421	BH040988	312331-421121	BH050045	221133-334312
BH040877	213331-423121	BH040933	242131-334321	BH040989	221231-343221	BH050046	443133-244212
BH040878	442431-321321	BH040934	434331-312421	BH040990	413131-334221	BH050047	212133-433112
BH040879	231131-442421	BH040935	224331-413421	BH040991	213431-431121	BH050048	221133-434212
BH040880	334431-121121	BH040936	243431-421321	BH040992	221331-442121	BH050049	112233-422112
BH040881	122431-421121	BH040937	111331-443221	BH040993	113431-421321	BH050050	412433-221312
BH040882	413431-321121	BH040938	432431-231221	BH040994	411231-242121	BH050051	344333-121312
BH040883	332131-224421	BH040939	311231-243121	BH040995	344231-124221	BH050052	234333-111212
BH040884	242331-133421	BH040940	243231-122121	BH040996	234431-121221	BH050053	431233-342412
BH040885	412331-432221	BH040941	411231-424321	BH040997	433131-344221	BH050054	221333-443212
BH040886	342331-112321	BH040942	324331-112121	BH040998	234331-411321	BH050055	413333-434212

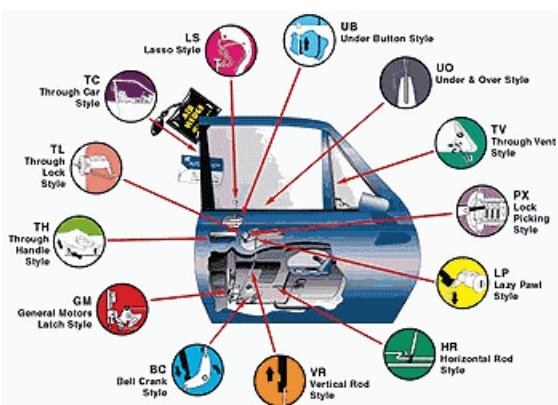
BMW Series

BMW BH010009-BH241009, Part 4

BH050056	421333-443212	BH050082	124433-313112	BH050108	132433-411312	BH050134	131333-344212
BH050057	324333-411112	BH050083	443433-123212	BH050109	424333-312412	BH050135	311133-422112
BH050058	213133-424412	BH050084	342233-111112	BH050110	211333-443112	BH050136	311333-444312
BH050059	111133-342412	BH050085	121133-434312	BH050111	413333-421112	BH050137	243133-344212
BH050060	442433-123312	BH050086	322133-444312	BH050112	412233-442212	BH050138	134233-212212
BH050061	334333-111312	BH050087	244433-113212	BH050113	312133-433212	BH050139	442333-113312
BH050062	434233-413312	BH050088	243233-134212	BH050114	244233-313312	BH050140	244333-412412
BH050063	344333-132312	BH050089	413133-433412	BH050115	121133-234312	BH050141	113333-434212
BH050064	333133-224312	BH050090	311133-432212	BH050116	432433-131312	BH050142	312433-443412
BH050065	242433-133412	BH050091	231233-342212	BH050117	231233-442312	BH050143	234333-112112
BH050066	412433-432312	BH050092	111333-243412	BH050118	413133-442412	BH050144	243333-123112
BH050067	313333-421212	BH050093	422133-134212	BH050119	343233-122212	BH050145	412233-423112
BH050068	232433-311312	BH050094	244233-133412	BH050120	313433-221312	BH050146	344433-331312
BH050069	132133-134412	BH050095	442333-134412	BH050121	244333-112412	BH050147	211233-343112
BH050070	331233-243112	BH050096	423133-234412	BH050122	413333-412112	BH050148	113133-124212
BH050071	122133-344212	BH050097	344333-131212	BH050123	344333-312112	BH050149	331233-442212
BH050072	113233-424212	BH050098	243333-111212	BH050124	242133-244212	BH050150	244233-123112
BH050073	411333-244212	BH050099	443133-334212	BH050125	431233-444312	BH050151	442333-124312
BH050074	342133-132312	BH050100	332133-334212	BH050126	311333-243412	BH050152	443233-134212
BH050075	242333-111112	BH050101	242433-211312	BH050127	131233-243112	BH050153	343233-121312
BH050076	444333-312412	BH050102	434233-211212	BH050128	133133-324412	BH050154	224233-111212
BH050077	321333-344312	BH050103	212133-412412	BH050129	442433-133412	BH050155	434233-312412
BH050078	112233-431312	BH050104	213133-433212	BH050130	344333-113212	BH050156	311333-342212
BH050079	312133-434312	BH050105	121333-343212	BH050131	134433-431112	BH050157	213133-244412
BH050080	322133-434412	BH050106	444333-124312	BH050132	424433-331312	BH050158	444333-133112
BH050081	212233-432112	BH050107	343433-111212	BH050133	342433-231212	BH050159	234333-311212

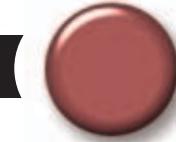


How To Open Cars



Arm yourself with the best information possible by learning every known method to open locked cars!

[CLICK HERE TO LEARN MORE](#)



BMW Series

BMW BH010009-BH241009, Part 4

BH050160	213333-413212	BH050216	234433-331312	BH050272	211333-342312	BH050328	231133-224412
BH050161	131233-242212	BH050217	111233-243112	BH050273	442433-431312	BH050329	421233-443312
BH050162	444233-111212	BH050218	424433-121312	BH050274	334433-431312	BH050330	324233-411312
BH050163	324233-111112	BH050219	232433-411212	BH050275	212333-442312	BH050331	213133-424212
BH050164	112233-443212	BH050220	113333-424312	BH050276	134433-321312	BH050332	111133-342212
BH050165	431233-243412	BH050221	413133-244212	BH050277	442133-134412	BH050333	442433-123112
BH050166	213233-422112	BH050222	244233-311212	BH050278	224433-312112	BH050334	231133-243112
BH050167	444233-313312	BH050223	421333-342212	BH050279	443433-221312	BH050335	421233-243112
BH050168	413433-424212	BH050224	442133-334312	BH050280	434233-311312	BH050336	413133-324312
BH050169	313233-413412	BH050225	334433-321112	BH050281	311133-342412	BH050337	333433-221312
BH050170	223133-324412	BH050226	233133-244212	BH050282	211333-244212	BH050338	242433-133312
BH050171	123133-134212	BH050227	433433-421312	BH050283	413133-443312	BH050339	412433-432112
BH050172	344333-411312	BH050228	324433-431312	BH050284	312133-442412	BH050340	313233-421312
BH050173	213333-443312	BH050229	212333-432212	BH050285	243133-344412	BH050341	232433-311112
BH050174	412333-431112	BH050230	412133-413312	BH050286	431133-334212	BH050342	411333-343212
BH050175	342433-111112	BH050231	244233-413312	BH050287	223433-431212	BH050343	213233-434212
BH050176	343333-124412	BH050232	343233-111212	BH050288	311133-134312	BH050344	222133-444212
BH050177	232433-111312	BH050233	123133-444212	BH050289	112433-442312	BH050345	113133-424312
BH050178	431133-342112	BH050234	424333-311112	BH050290	431133-243112	BH050346	411233-244312
BH050179	324433-313112	BH050235	332133-244412	BH050291	324333-211312	BH050347	342133-132112
BH050180	221233-243112	BH050236	243333-134212	BH050292	243433-123212	BH050348	242233-111212
BH050181	423433-421112	BH050237	413333-433212	BH050293	412133-424312	BH050349	444333-312212
BH050182	344333-124212	BH050238	343433-113412	BH050294	323433-121312	BH050350	233133-424212
BH050183	111333-244312	BH050239	112133-134412	BH050295	422133-444212	BH050351	412433-442312
BH050184	112133-334412	BH050240	123133-224412	BH050296	122433-131312	BH050352	432433-421312
BH050185	442233-123312	BH050241	431133-134212	BH050297	343433-411312	BH050353	322133-434212
BH050186	332433-111212	BH050242	231133-442212	BH050298	213233-443212	BH050354	212133-432412
BH050187	113433-443112	BH050243	112333-432312	BH050299	112233-413112	BH050355	124333-313412
BH050188	444433-213112	BH050244	424433-231312	BH050300	443333-134212	BH050356	443333-123312
BH050189	321133-244412	BH050245	344433-131312	BH050301	343433-121112	BH050357	342133-111212
BH050190	113133-344412	BH050246	121333-244212	BH050302	131133-124212	BH050358	434433-431312
BH050191	331133-342212	BH050247	311133-343312	BH050303	332433-231312	BH050359	312133-234312
BH050192	312433-424312	BH050248	344333-311212	BH050304	324233-313412	BH050360	331333-244312
BH050193	223133-344212	BH050249	243133-234412	BH050305	224433-231312	BH050361	243433-133412
BH050194	131133-134312	BH050250	431233-443212	BH050306	424433-413112	BH050362	413133-433212
BH050195	413133-124312	BH050251	334233-412412	BH050307	313233-442212	BH050363	311333-431312
BH050196	222433-431112	BH050252	213233-433112	BH050308	211233-421212	BH050364	231133-342312
BH050197	112133-423112	BH050253	121133-344312	BH050309	131333-242112	BH050365	111333-243212
BH050198	313133-424312	BH050254	343133-324312	BH050310	321133-342112	BH050366	344233-213212
BH050199	134333-411212	BH050255	112333-443312	BH050311	111333-431312	BH050367	132133-334212
BH050200	234433-131312	BH050256	133433-431212	BH050312	113233-443312	BH050368	112233-432212
BH050201	444233-312312	BH050257	422133-334412	BH050313	444233-213312	BH050369	423133-234212
BH050202	321133-344312	BH050258	343133-224412	BH050314	321333-243112	BH050370	344233-131312
BH050203	233133-224412	BH050259	244333-134312	BH050315	244333-124312	BH050371	243233-111312
BH050204	421133-444312	BH050260	412333-442112	BH050316	411233-431112	BH050372	443433-331112
BH050205	324333-412212	BH050261	312133-433412	BH050317	313433-413212	BH050373	332433-331212
BH050206	242233-113412	BH050262	131333-444312	BH050318	124333-413112	BH050374	113133-432212
BH050207	433133-134212	BH050263	344233-412412	BH050319	321333-442212	BH050375	312333-442212
BH050208	443233-123412	BH050264	442233-113212	BH050320	344433-431312	BH050376	334233-411312
BH050209	332133-134412	BH050265	244233-412412	BH050321	224433-421212	BH050377	213433-432412
BH050210	123133-424412	BH050266	113433-433212	BH050322	112133-422412	BH050378	121233-343312
BH050211	412433-331312	BH050267	434233-213412	BH050323	412433-221112	BH050379	444333-124212
BH050212	331133-234212	BH050268	311133-234212	BH050324	344333-121112	BH050380	343333-111312
BH050213	242133-134412	BH050269	244233-113212	BH050325	234233-111312	BH050381	132433-411112
BH050214	444333-122112	BH050270	443433-112212	BH050326	424433-113212	BH050382	333133-424312
BH050215	243133-244212	BH050271	221333-243412	BH050327	244333-131112		

Continued on page 144

Continued from page 142

BMW Series

BMW BH010009-BH241009, Part 4

BH050383	243133-124412	BH050439	242433-111212	BH050495	131133-442112	BH050551	113133-444312
BH050384	244233-134312	BH050440	244233-124312	BH050496	242433-113412	BH050552	211133-134212
BH050385	412133-442312	BH050441	413333-424312	BH050497	442133-334212	BH050553	434233-311112
BH050386	312433-432412	BH050442	313233-413212	BH050498	333133-324412	BH050554	311133-342212
BH050387	244233-313212	BH050443	223133-324212	BH050499	232133-244312	BH050555	211233-244312
BH050388	124433-221312	BH050444	123433-131212	BH050500	433433-421212	BH050556	413133-443112
BH050389	432433-131112	BH050445	344333-411112	BH050501	324433-431212	BH050557	312133-442212
BH050390	211333-242212	BH050446	242433-132312	BH050502	243233-113312	BH050558	223133-124212
BH050391	444333-131112	BH050447	443133-124212	BH050503	442433-113412	BH050559	412133-134312
BH050392	434333-212412	BH050448	444333-134212	BH050504	444433-123112	BH050560	443333-113212
BH050393	313433-221112	BH050449	343333-124312	BH050505	343133-111312	BH050561	313133-124412
BH050394	244333-112212	BH050450	232433-111112	BH050506	122133-444312	BH050562	112433-442112
BH050395	413233-412412	BH050451	434433-331312	BH050507	424233-311312	BH050563	431333-242412
BH050396	344233-312412	BH050452	324333-313412	BH050508	332133-244212	BH050564	324333-211112
BH050397	244433-231312	BH050453	221133-243412	BH050509	243233-134412	BH050565	243333-123312
BH050398	432133-234412	BH050454	411333-242212	BH050510	442433-132312	BH050566	442233-121312
BH050399	211233-422112	BH050455	231333-342112	BH050511	211333-343212	BH050567	234433-221312
BH050400	212133-442312	BH050456	213233-423412	BH050512	244333-312212	BH050568	221133-324212
BH050401	133133-324212	BH050457	112133-334212	BH050513	123133-224212	BH050569	122433-131112
BH050402	442433-133312	BH050458	442233-123112	BH050514	434433-121212	BH050570	343433-411112
BH050403	344233-113312	BH050459	324433-131312	BH050515	234433-431212	BH050571	213133-443312
BH050404	133133-434412	BH050460	113333-443412	BH050516	112333-432112	BH050572	112133-413412
BH050405	424433-331212	BH050461	444333-213412	BH050517	424433-231112	BH050573	443233-134412
BH050406	213133-442212	BH050462	211233-433112	BH050518	242133-334212	BH050574	221133-343312
BH050407	411133-432112	BH050463	444433-331212	BH050519	434333-312312	BH050575	413433-331212
BH050408	413433-442112	BH050464	412233-432312	BH050520	413133-412112	BH050576	433133-334212
BH050409	311233-444212	BH050465	312233-424312	BH050521	344233-311312	BH050577	324233-313312
BH050410	242133-344412	BH050466	222133-344312	BH050522	243133-234212	BH050578	224433-231112
BH050411	134333-211212	BH050467	134433-121312	BH050523	431133-443312	BH050579	424333-413412
BH050412	442333-113112	BH050468	412133-124412	BH050524	334233-412212	BH050580	313133-442312
BH050413	244333-412312	BH050469	221133-434412	BH050525	213133-433412	BH050581	213433-413112
BH050414	424333-412112	BH050470	413233-431112	BH050526	411133-424212	BH050582	432133-344412
BH050415	344233-122112	BH050471	343133-112412	BH050527	324333-111212	BH050583	234333-411112
BH050416	313133-244312	BH050472	342333-131212	BH050528	344333-112112	BH050584	322433-131312
BH050417	243233-123412	BH050473	234433-131112	BH050529	132133-434312	BH050585	113233-443112
BH050418	412133-423412	BH050474	444233-312112	BH050530	422133-334212	BH050586	444233-213112
BH050419	344433-331112	BH050475	321333-343412	BH050531	343133-224212	BH050587	321233-243412
BH050420	211133-343412	BH050476	233133-224212	BH050532	244333-134212	BH050588	244333-124212
BH050421	112133-124312	BH050477	421333-443412	BH050533	412233-442412	BH050589	413433-424312
BH050422	324433-221312	BH050478	342433-133112	BH050534	342133-123312	BH050590	332433-121112
BH050423	111233-342312	BH050479	122133-234212	BH050535	124433-131112	BH050591	433133-424312
BH050424	112333-412112	BH050480	124233-313112	BH050536	132433-211312	BH050592	133133-124212
BH050425	443433-133412	BH050481	443233-123212	BH050537	442133-113312	BH050593	344433-431212
BH050426	343233-121112	BH050482	332133-134212	BH050538	244233-412212	BH050594	223133-424312
BH050427	213133-134412	BH050483	123133-424212	BH050539	113333-433112	BH050595	112333-421312
BH050428	434233-312212	BH050484	412433-331112	BH050540	434233-213212	BH050596	411133-224212
BH050429	311233-342312	BH050485	334433-221212	BH050541	313133-224312	BH050597	344233-121212
BH050430	111333-421212	BH050486	123133-334412	BH050542	131133-234412	BH050598	112133-234312
BH050431	313433-421112	BH050487	344333-312412	BH050543	322133-324412	BH050599	333133-244312
BH050432	312433-444312	BH050488	313433-424312	BH050544	342133-334212	BH050600	321233-343112
BH050433	213233-413312	BH050489	234433-331112	BH050545	211333-342112		
BH050434	131133-242312	BH050490	111133-243412	BH050546	442433-431112		
BH050435	443433-113312	BH050491	424433-121112	BH050547	334433-431112		
BH050436	312133-134412	BH050492	223133-444312	BH050548	212333-442112		
BH050437	112133-443312	BH050493	113233-424412	BH050549	134433-321112		
BH050438	313433-443312	BH050494	312333-431212	BH050550	312333-413212		

TNL

TheNationalLocksmith.com

Technical forums, chat, online store, plus
 visit our sponsors...

WEB REVIEW

1-800-UNLOCKS



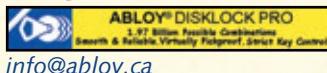
www.1-800-UNLOCKS.com

A&B Safe Corporation



www.a-bsafecorp.com

Abloy® DiskLock Pro



info@abloy.ca

Adesco Safe Manufacturing Co.



www.adesco.com

Aiphone



www.aiphone.com

Dynalock Corp.



www.dynalock.com

Framon Manufacturing Co.



www.framon.com

Herbert L. Flake Company



www.hlflake.com

HPC, Inc.



www.hpcworld.com

International Locking Devices, Ltd.



www.gatelock.com

Tech-Train Productions

<http://www.techtrainproductions.com>



Tech-Train's web site is chock full of information on tools and manuals. One thing we like is an Internet Special's link that shows you special sale prices offered on items that you can order online. For example, the now-famous Jiffy-Jak system is sold on the web site with a \$20.00 discount in place. Other books and tools also feature a slightly reduced cost for web users. Undoubtedly, this is because it is more economical to fulfill orders, which come in off the web. It's nice to see web users rewarded in this manner.

It's also good to see a wide variety of technical videos available for locksmiths, ranging from general skills to car opening, broken down by year. Plus, do you remember the Reed Security Reporter? You can buy economical back issues of this publication on the site.

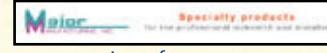


KSP



www.iccore.com

Major Manufacturing



www.majormfg.com

KustomKey



www.kustomkey.com

McDonald DASH Locksmith Supply



www.mcdonalddash.com

MAG Security



www.magsecurity.com

Meilink



www.meilinksafe.com

Monaco Lock



www.monacolock.com

National Auto Lock Service, Inc.



www.laserkey.com

Omaha Wholesale Hardware



www.omawahw.com

ROFU International Corp.



www.rofu.com

SecuraKey



www.securakey.com

Security Resources, Inc.



www.techtrainproductions.com

ShatterGard Security Window Film



www.shattergard.com

Sieveking Products Co.



www.sievekingprodc.com

TekTone



www.tektone.net

Manufacturers and distributors... join the high profile locksmith web site and you'll be featured here!

Call Jeff Adair (ext. 15) or Debbie Schertzing (ext. 16) for details. (630) 837-2044

**Taking
Industry Products
for a**

TEST DRIVE!

For all the intrigue and satisfaction that working in the locksmith trade can bring, none of us are immune, at one time or another, to the Popeilian chants proclaiming the virtues of the next wonder tool - "Effortlessly and quickly generate keys...pick locks...manipulate safes...open cars...etc. For a lucky few, the words ring true. For most, however, the promises and proclamations of a tool made in heaven often lead down a long, frustrating road of disappointment and unmet expectations.

This issue of Test Drive is dedicated to testing the claims of one such tool - the High Security Flip Pick by Lockmasters, Inc.

The claim is simple - this tool allows a trained locksmith to open in a few minutes or less, a 3, 5, 7, or 8-Series BMW utilizing the BMW high security 4-track key system. This pick also opens late model 4.0 and 4.6 Range Rovers.

Description:

Unlike most tools designed for car opening, Lockmasters' High Security Flip Pick is designed to bypass the vehicle's locking system directly through a door or deck lock. This approach eliminates the potential for subsequent damage caused by the use of door wedges and in-the-door tools.

The tool comes as a kit and is comprised of three components: a tension wrench, a picking blade and a plug spinner. While seemingly simple, these parts are designed specifically for the BMW lock, minimizing the possibility of damaging the lock's facecap, plug and tumblers during the opening process.

Tool Use:

Tool use is actually quite simple, and involves basic lock picking techniques.

The High Security Flip Pick, by Lockmasters, Inc.



Before beginning, load the plug spinner by turning and locking its blade so that it returns the lock being bypassed to the UNLOCK position. Set the plug spinner aside.

Begin by inserting the tension wrench into the face of a door or deck lock. Position the tool, keeping in mind that the lock is going to be turned towards the LOCK position. Do not apply turning pressure to the wrench.

Next, insert the picking blade into the lock until it is fully seated. Rock the tension wrench to alleviate any binding on the tumblers. We're now ready to "pick" the lock.

Grasping the tension wrench, turn the lock towards the LOCK position, applying light turning pressure on lock tumblers. This will bind the tumblers in the locked or up position.

While maintaining pressure on the tumblers, gently pull the picking blade out of the lock.

With the picking blade removed and while maintaining pressure towards the LOCK position, softly wiggle or rock the tension wrench until all tumblers fall to the shearline. Rotate and hold the lock in the LOCK position.

Finally, insert the plug spinner into the lock. Use the blade of the plug spinner to hold the lock's plug in the LOCK position and remove the tension wrench.

Pull the trigger of the plug spinner to rotate the lock's plug to the UNLOCK position. The car is open!

Field Testing:

Needless to say, this tool sounds simple to use, but how does it really work in the field? The challenge was to open a line of ten 2000 7-Series and 8-Series BMW's. The results? 8 of the 10 locks were defeated. In all successful attempts, the vehicles were picked in times ranging from 15 seconds to 1 minute 33 seconds.

Price:

The High Security Flip Pick is \$299.00 and is available only through Lockmasters, Inc.

Conclusion:

Lockmasters' High Security Flip Pick is one of those Wonder Tools that is truly a wonder. Although some practice will help decrease the amount of time it takes to open a BMW, any experienced locksmith will find this tool easy to use and a good addition to the tool box. Now is your chance to start saying "YES" to those BMW calls.

For more information contact:

Lockmasters, Inc.

5085 Danville Rd.

Nicholasville, KY 40356

Phone: 800-654-0637 or (859)

885-6041; Fax: (859) 885-7093

Web: www.lockmasters.com

Circle 276 on Rapid Reply. TNL

IN SUMMARY:

DESCRIPTION: A pick that opens 3, 5, 7, or 8-Series BMW's utilizing the 4-track key system.

PRICE: \$299.00

COMMENTS: Defeated locks in 2-minutes or less.

TEST DRIVE RESULTS: Worked with amazing ease. Never say "No" to those BMW calls again.